

SACRAMENTO-YOLO
MOSQUITO & VECTOR
CONTROL DISTRICT

AUGUST 18, 2020

BOARD OF TRUSTEES
REGULAR MEETING

BOARD PACKET

10:00 A.M.

8631 Bond Road
Elk Grove, CA 95624

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**SACRAMENTO/YOLO MOSQUITO
& VECTOR CONTROL DISTRICT
BOARD OF TRUSTEES REGULAR MEETING**

8631 Bond Road
Elk Grove, CA 95624

**AGENDA
August 18, 2020
10:00 AM**

In compliance with the Americans with Disability Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in this meeting, please contact the District office at (916) 685-1022 or (916) 685-5464 (fax). Requests must be made as early as possible, and at least one-full business day before the start of the meeting. Documents and materials relating to an open session agenda item that are provided to the SYMVCD Board less than 72 hours prior to a regular meeting will be available for public inspection and copying at 8631 Bond Road, Elk Grove, Ca 95624. The documents will also be available on the agency's website at www.fightthebite.net.

CALL TO ORDER:

- **Roll Call**
- **Pledge of Allegiance**

1. **Items for Approval by General Consent:**
 - a. **Minutes of the July 21, 2020 Board of Trustees Meeting**
 - b. **Expenditures for July 2020**
 - c. **Actuarial Valuation of Other Post-Employment Benefit Programs as of June 30, 2019**
2. **Opportunity for Public Comment**

This item is reserved for members of the public who wish to speak on items not on the agenda
3. **Reports to the Board**
 - a. **Manager's Report**
 - b. **Reports from District Departments**
 - **Lab/Surveillance**
 - **Ecological Management**
 - **Biological Control**
 - **Larval and Adult Control**
 - **Public Outreach**
4. **Status of West Nile Virus Activity and District Response**

5. **Closed Session- Provide Instruction to Designated Labor Representatives (Gov. Code s. 54957.6-Labor Negotiations)**
Agency Designated Representatives : [Gary Goodman, Janna McLeod, Samer Elkashef, Chris Voight] Employee Organization: [Operating Engineers Local Union #3]
6. **Board Review and Approval of Side Letter to the MOU between District and Operating Engineers Local Union #3**
7. **Board/Staff Reports and Requests**
8. **Adjournment**

Sacramento-Yolo Mosquito and Vector Control District

August 18, 2020 Board Meeting

1. Items for Approval by General Consent:

- a. Minutes of the July 21, 2020 Board of Trustees Meeting;
- b. Expenditures for July 2020;
- c. Actuarial Valuation of Other Post-Employment Benefit Programs as of June 30, 2019.

Recommendation:

Approve the Items by General Consent

**MINUTES OF THE JULY 21, 2020
MEETING OF THE BOARD OF TRUSTEES OF THE
SACRAMENTO-YOLO MOSQUITO & VECTOR CONTROL DISTRICT**

PLACE: 8631 Bond Road, Elk Grove, CA 95624

TIME: 10:00 a.m.

TRUSTEES PRESENT:

Jayna Karpinski-Costa	President	Citrus Heights
Craig Burnett	Vice President	Folsom
Gar House	Secretary	Winters
Christopher Barker		Davis
Raul DeAnda		West Sacramento
Sean Denny		Woodland
Bruce Eldridge		Yolo County
Lyndon Hawkins		Elk Grove
Raymond LaTorre		Sacramento
Susan Maggy		Sacramento County
Robert McGarvey		Rancho Cordova
Marcia Mooney		Galt
Vacant		Isleton

TRUSTEES ABSENT: None

LEGAL COUNSEL:

Jennifer Buckman

STAFF PRESENT:

Gary Goodman	Manager
Samer Elkashef	Assistant Manager
Janna McLeod	Administrative Manager
Marcia Reed	Laboratory Director
Marty Scholl	Ecological Management Supervisor
Tony Hedley	Fisheries Supervisor
Steve Ramos	Program Coordinator
Luz Robles	Public Information Officer

CALL TO ORDER

The meeting was called to order at 10:07 a.m. by President Jayna Karpinski-Costa.

Roll Call

This meeting was held and attended by Video Teleconference. All Trustees were in attendance, with Isleton vacant; therefore, a quorum was present. Trustee McGarvey left the meeting at 11:00am. Trustee DeAnda had technical issues at the start of the meeting and left the meeting at noon.

Pledge of Allegiance

All phones and electronic devices are requested to be silenced during the meeting.

1. ITEMS FOR APPROVAL BY GENERAL CONSENT

On a motion by Trustee Maggy seconded by Trustee Denny, the Board voted to approve General Consent Items a. and b. The vote was taken by roll call and the motion passed by the following vote: Ayes: 11, Noes: 0, Absent: 1(DeAnda).

- a. Minutes of the June 16, 2020 Board of Trustees Meeting;
- b. Expenditures for June 2020.

2. OPPORTUNITY FOR PUBLIC COMMENT

This item is reserved for members of the public who wish to speak on items not on the agenda.

Mr. Felix Huerta Jr., Representative of OE3, Union President, Kevin Valone, Union Vice President Robert Fowler, and MOAT Unit employees Ron Burkhouse, Marti Towery, and Marilou Thomas requested to speak to the Board during Public Comment. The speakers commented on Union concerns including salary adjustments, cost of living and the Consumer Price Index (CPI) as well as the Ecological Management Technician description and salary.

3. CLOSED SESSION- Provide Instruction to Designated Labor Representatives (Gov. Code s. 54957.6-Labor Negotiations) Agency Designated Representatives: [Gary Goodman, Janna McLeod, Samer Elkashef, Chris Voight] Employee Organization: [Operating Engineers Local Union #3]

At 10:37 am President Karpinski-Costa adjourned the Open Meeting. The Board went into the Closed Session for Item 3 at 10:39am. The Board returned to Open Session at 11:21 am. The Board reported that it provided direction to the District designated representatives to continue with the process of negotiations.

4. BOARD REVIEW AND APPROVAL OF DISTRICT BUDGET FOR 2020-2021.

Manager Goodman reviewed projected revenues and expenditures, the CalPERS UAL payment, and planned capital expenditures. In light of the uncertainty of the impacts to revenues due to the pandemic a salary adjustment, based on CPI was not included in the budget for non-represented employees; however, 4 paid days off, representing a 1.6% value of salary, to be taken between the Christmas and New Year holidays would be effective for non-represented employees. The budget also includes an increase of \$100 in the cafeteria plan credits from \$1,200 per month to \$1,300 per month and will be effective July 1, 2020 for non-represented employees. Any proposal to modify salary and/or benefits for the represented employees within the MOAT unit is a part of the collective bargaining process that is ongoing and will be presented for consideration along with any proposals related to the Memorandum of Understanding (MOU) between the District and OE3 when that is brought to the Board. On a motion by Trustee Burnett seconded by Trustee Mooney, the Board voted to approve the District Budget for FY 2020-2021. The vote was taken by roll call and the motion passed by the following vote: Ayes: 10, Noes: 1, Absent: 1 (DeAnda). Trustee Sean Denny cast the No vote.

5. REPORTS TO THE BOARD

a. Manager's Report:

The District's West Nile season is quickly gaining momentum as compared to last year and crews are very busy addressing high populations and virus activity in various areas. Staff will continue to

follow the Mosquito Borne Disease Management Plan with enhanced surveillance and control efforts in response to positive dead birds or positive mosquito collections. The District conducted a flyover of approximately 50 square miles over parts of north Sacramento County to look for green swimming pools and compare to the District's previous flyovers. The Manager has met online with Congressman Ami Bera to discuss the impact of COVID-19 on the District and to explore potential federal relief programs. The Manager also engaged with Senator Marco Rubio (FL) on potential appropriations for the SMASH Act. We have been partnering with other public health entities to educate our lawmakers on the need for this funding. AMCA is submitting a grant request to CDC for expansion of the AMCA's Best Management Practices Manual to include training for Culex species and to incorporate an emergency response component. The MVCAC made some recent changes to the Board structure and is currently looking for a new trustee to sit on their Board of Directors. The language describing the trustee council in the bylaws was deleted and essentially created a Board position for a trustee at large. It will now follow the procedures for the Vice President Election process currently in place and would serve on the board and advocate for trustee issues. They can serve for more than a year if elected and there are no term limits. The overall goal is to better connect the trustees on MVCAC business, providing engaged trustees places to bring their talents.

b. Reports from District Departments: Written reports were provided in the Board packet from each department. Department supervisors gave an oral presentation and were available to answer any questions.

Lab/Surveillance: Laboratory Director, Marcia Reed discussed department activities including mosquito abundance, dead bird program and collaborations. The Lab has tested 2,871 mosquito sample pools with 16 testing positive for West Nile virus. This same time last year we had just 3 positive sample pools with the same number of pools tested. During the 2018 season, which was a high West Nile virus year, we had 149 positive mosquito sample pools. So, while this year is higher than last year it is still a low activity year at this point. The positive samples were collected from the Fair Oaks/Orangevale area, South Sacramento (Elder Creek) area and the Elk Grove area. Of the dead birds collected so far this year, 20 have tested positive with just one positive this time last year. Seventeen of the twenty positive birds have come from the same areas as the positive mosquito samples. While the District has not yet detected *Aedes aegypti*, our neighbor to the south, San Joaquin Mosquito District, has detected Aedes. Once the District has detected Aedes activity in current traps the Lab will expand out to other sites within the District to try to determine if they are present in other areas. The Catch Basin Residue and Resistance study kits have been received and the first samples will be collected from basins this month.

Ecological Management: Ecological Management Supervisor, Marty Scholl discussed department activities including Agriculture, Storm Water and Drainages, Wetland/Rice Program and cemeteries. Staff continues to study mosquito larvae reduction by removal of vegetation in dairy sumps. The sumps will be monitored and compared to those that were not mowed throughout the season. Staff is working with Sacramento County Department of Water Resources and the Cities of Woodland and Winters on beaver dam removals at various sites in their respective areas. Staff removed beaver dam blockages within the main drainage culverts on the Channel Ranch, and are working with Conaway Ranch on early wild rice flooding and BMPs.

Biological Control: Fisheries Supervisor, Tony Hedley discussed department activities including fish plants, regular maintenance and special projects. Tony updated the numbers in his written report to over 1200 lbs. of mosquitofish planted in over 3200 different sites. One hundred and two of those sites planted are rice fields. The current 6-7 week window is the busiest time of the year for Fisheries as technicians try to stock as many rice fields as quickly and efficiently as possible during this time frame. The department harvested over 150 lbs. of mosquitofish from outside sources last month that are isolated from game fish, are easily cleaned and accessed to supplement District stock. Fisheries is participating in several projects this season including

dissolved oxygen levels, crayfish trapping, ideal stocking rates and the use of mosquitofish pheromones to repel mosquito egg laying.

Larval and Adult Control: Program Coordinator, Steve Ramos discussed department activities including rice program and acreage, equipment and trials. Rice acreage for the 2020 season is in and there is a total of 45,498 acres with 38,653 acres of conventional and 6,836 acres of organic. Crews have been responding to positive mosquito samples and positive dead birds with barrier treatments and some ground adulticiding. The Sumilarv trials in rural and urban sources are ongoing as well as low volume larviciding (LVL) applications using the A-1 mist blower. Given the success of the A-1 with WALs applications, trials with different products are expected to run throughout the season to see if we can expand the products used in the A-1.

Public Outreach: Public Information Officer, Luz Robles reported on department activities including, Advertising, a Pesticide Training Video collaboration, Repellent Distribution, Social Media and Government Affairs. A press release was issued last week in response to positive West Nile virus detection in Yolo County and activity detected in northern Sacramento County with coverage in the Sacramento Bee and the Davis Enterprise. District staff was asked to participate in a pesticide training video with UC Davis and the Pesticide Educational Resource Collaborative with the video shoot of our District taking place on July 14. The Advertising campaign is in full swing and social media engagement continues to increase with posts from residents complaining of mosquitoes resulting in the generation of additional service requests. Written reports have been submitted to our city councils for inclusion on their council meeting agendas to update them on District activities for the season.

6. BOARD AUTHORIZATION TO PAY CALPERS UNFUNDED LIABILITY IN THE AMOUNT OF \$1,024,612

Gary Goodman introduced the item and was available for questions. On a motion by Trustee Burnett seconded by Trustee Maggy, the Board voted to approve the payment of the CalPERS Unfunded Liability in the amount of \$1,024,612. The vote was taken by roll call and the motion passed by the following vote: Ayes: 10, Noes: 0, Absent: 2 (DeAnda, McGarvey).

7. BOARD AUTHORIZATION TO PAY 2020/2021 ANNUAL PREMIUM INVOICE OF \$359,159 FOR COVERAGE THROUGH THE VECTOR CONTROL JOINT POWERS AGENCY

Gary Goodman introduced the item and was available for questions. On a motion by Trustee Maggy seconded by Trustee Eldridge, the Board voted to approve the payment of the VCJPA Premium in the amount of \$359,159. The vote was taken by roll call and the motion passed by the following vote: Ayes: 10, Noes: 0, Absent: 2 (DeAnda, McGarvey).

8. BOARD/STAFF GENERAL DISCUSSION

Both the MVCAC and AMCA are planning their Annual Conferences for next year and are putting together plans for a fully live, in-person conference as well as a hybrid of live and remote attendance due to COVID-19.

The MVCAC Fall Meeting is slated to be a live meeting with contingency plans for remote attendance.

The Annual Financial Audit is scheduled for September.

The District is exploring working with a company on improving efficiency of mosquito sample pooling and testing.

Due to the Pandemic the District is exploring options and opportunities for how to address COVID related issues throughout the off season when personnel spend less time in the field and more time in the office. Ideas, questions and concerns from District personnel are welcome and encouraged.

9. ADJOURNMENT

The meeting adjourned at 12:16 pm

* * * * *

I certify that the above minutes substantially reflect the general business and actions taken by the Board of Trustees at the July 21, 2020 meeting.

Gary Goodman, Manager

Approved as written and/or corrected by the Board of Trustees at the August 18, 2020 meeting.

Gar House, Board Secretary

July 2020 Check Register
Activity From: 7/1/2020 to 7/31/2020
Sacramento Yolo MVCD (SYC)

Check Number	Check Date	Vendor Number	Name	Check
Bank Code: U US Bank				
053975	7/2/2020	0000504	US Bank	24,829.24
053976	7/9/2020	0000006	Adapco Inc	184,273.70
053977	7/9/2020	0000008	Aerial Services	6,174.00
053978	7/9/2020	0000014	Alhambra & Sierra Springs	53.75
053979	7/9/2020	0000017	American Mosquito Control Association	5,250.00
053980	7/9/2020	0000018	ANDKO Building Maintenance Inc.	4,804.94
053981	7/9/2020	0000050	Biosearch Technologies Inc	3,259.48
053982	7/9/2020	0000073	CA Dept of Public Health	9,324.00
053983	7/9/2020	0000091	Capital Public Radio Inc	1,487.50
053984	7/9/2020	0000117	City of Woodland	562.98
053985	7/9/2020	0000119	Clarke Mosquito Control Products Inc	53,284.75
053986	7/9/2020	0000121	Clear Channel Outdoor	13,790.00
053987	7/9/2020	0000124	Effectv	2,865.78
053988	7/9/2020	0000126	Complete Welders Supply Inc	1,685.92
053989	7/9/2020	0000128	Consolidated Communications	775.73
053990	7/9/2020	0000186	Elk Grove Water District	1,267.05
053991	7/9/2020	0000192	Entercom Sacramento	20,000.00
053992	7/9/2020	0000199	Farm Air Flying Service	30,797.41
053993	7/9/2020	0000208	Fox 40 KTXL	1,200.00
053994	7/9/2020	0000220	Gemini Bio-Products	134.69
053995	7/9/2020	0000240	Hunt & Sons Inc	6,863.42
053996	7/9/2020	0000250	Jack Nadel International	6,958.26
053997	7/9/2020	0000272	KCRA TV 3	9,350.00
053998	7/9/2020	0000273	KCSO Telemundo of Northern CA	3,000.00
053999	7/9/2020	0000277	Kimball Midwest	346.92
054000	7/9/2020	0000279	KMAX TV	5,000.00
054001	7/9/2020	0000299	Luken Benjamin Associates	2,235.00
054002	7/9/2020	0000332	MVCAC	11,500.00
054003	7/9/2020	0000356	OReilly Automotive Stores Inc	358.34
054004	7/9/2020	0000367	PG & E	180.10
054005	7/9/2020	0000388	Republic Services #922	88.40
054006	7/9/2020	0000398	Russian American Media Inc	2,000.00
054007	7/9/2020	0000424	Safe Side Security	384.00
054008	7/9/2020	0000427	Safety Kleen Corp	2,414.02
054009	7/9/2020	0000451	SMUD	4,710.41
054010	7/9/2020	0000462	Sterling May Co	217.15
054011	7/9/2020	0000475	Target Specialty Products	11,572.35
054012	7/9/2020	0000497	Magnegas Welding Supply - West	84.75
054013	7/9/2020	0000505	US Bank Equipment Finance	102.36
054014	7/9/2020	0000515	Valley Tire Center	20.00
054015	7/9/2020	0000518	Vector Disease Control International	50,000.00
054016	7/9/2020	0000522	Verizon Wireless	2,802.24
054017	7/9/2020	0000529	Waste Management	164.96
054018	7/9/2020	0000937	Staples Business Advantage	246.45
054019	7/9/2020	0000956	Employee Benefits Law Group	668.25
054020	7/9/2020	0000958	GreatAmerica Financial Services	372.82
054021	7/9/2020	0001011	Buckmaster Office Solutions	786.48
054022	7/9/2020	0001019	Cintas Corporation	2,908.58
054023	7/9/2020	0001233	Grow West	687.54
054024	7/9/2020	0001234	T-Mobile	836.16

054025	7/9/2020	0001274	Barber & Gonzales LLC	2,600.00
054026	7/9/2020	0001453	Via Media Cable	1,500.00
054027	7/9/2020	0001465	Sacramento Control Systems, Inc.	664.50
054028	7/17/2020	0000083	CA Department of Tax and Fee	144.00
054029	7/17/2020	0000141	CSAC Excess Insurance Authority	328.44
054030	7/17/2020	0000267	Kaiser Foundation Health Plan	24,606.48
054031	7/17/2020	0000267	Kaiser Foundation Health Plan	19,298.86
054032	7/17/2020	0000267	Kaiser Foundation Health Plan	3,844.75
054033	7/17/2020	0000357	P & A Administrative Services Inc	130.50
054034	7/17/2020	0000373	Preferred Benefit Ins Administrators	8,548.30
054035	7/17/2020	0000957	Sutter Health Plus	8,459.87
054036	7/17/2020	0000531	Western Health Advantage	5,184.47
054037	7/17/2020	0000531	Western Health Advantage	3,053.82
054038	7/20/2020	0000006	Adapco Inc	96,661.86
054039	7/20/2020	0000015	All Star Glass	281.16
054040	7/20/2020	0000026	ArcSource	67.50
054041	7/20/2020	0000034	AutoZone Inc	2,478.58
054042	7/20/2020	0000038	Bartkiewicz Kronick & Shanahan	2,250.00
054043	7/20/2020	0001011	Buckmaster Office Solutions	114.08
054044	7/20/2020	0001498	Charles Ingalls Construction	2,753.00
054045	7/20/2020	0000119	Clarke Mosquito Control Products Inc	33,143.47
054046	7/20/2020	0000162	Department of Toxic Substances Control	300.00
054047	7/20/2020	0000240	Hunt & Sons Inc	3,954.42
054048	7/20/2020	0000250	Jack Nadel International	2,338.16
054049	7/20/2020	0000306	Maita Chevrolet	256.17
054050	7/20/2020	0000324	Mitchell 1	1,728.00
054051	7/20/2020	0000367	PG & E	976.44
054052	7/20/2020	0001270	Rubicon Global, LLC	200.26
054053	7/20/2020	0000454	Spark Creative Design	324.00
054054	7/20/2020	0000475	Target Specialty Products	91,096.95
054055	7/20/2020	0000518	Vector Disease Control International	50,000.00
054056	7/20/2020	0000526	VWR International Inc	475.56
054057	7/20/2020	0000534	Wiley Price & Radulovich	1,073.00
054058	7/31/2020	0000043	Benefit Coordinators Corporation	3,259.75
054059	7/31/2020	0000084	CA State Disbursement Unit	350.00
054060	7/31/2020	0000339	Nationwide Retirement Solutions	1,550.00
054061	7/31/2020	0000339	Nationwide Retirement Solutions	4,100.00
054062	7/31/2020	0001035	Operating Engineers Local Union No. 3	1,235.00
054063	7/31/2020	0000504	US Bank	15,778.97
W00146	7/31/2020	0000087	CalPERS Financial Reporting & Accounting	81,851.87
W00147	7/31/2020	0000086	CalPERS 457 Plan	21,780.30
W00148	7/31/2020	0000087	CalPERS Financial Reporting & Accounting	634,143.00
W00149	7/31/2020	0000087	CalPERS Financial Reporting & Accounting	5,777.00
W00150	7/31/2020	0000176	EDD	16,400.75
W00151	7/31/2020	0000561	United States Treasury	69,187.45
Bank U Total:				<u>1,716,930.57</u>
Report Total:				<u><u>1,716,930.57</u></u>

I hereby authorize the use of my signature plate on
the above-listed warrants, 053975-054063, and EFTs W00146-W00151

 Signature

 Date

S.Y.M.V.C.D
FY 2020-2021 Budget Update
July 2020

Account #	Account Description	1 Month Ended July 31, 2020	FY 20-21 Annual Budget	Unused
4000	REVENUE	\$ -	\$ -	\$ -
5000	SALARIES/BENEFITS/WC	\$ 1,481,809.34	\$ 8,793,710.68	\$ 7,311,901.34
5010	Administrative Department	\$ 74,237.50	\$ 904,230.06	\$ 829,992.56
5015	Ecological Management Department	\$ 21,581.40	\$ 260,270.27	\$ 238,688.87
5020	Shop	\$ 21,272.73	\$ 255,241.40	\$ 233,968.67
5025	Control Ops Supervisors	\$ 41,887.44	\$ 517,420.14	\$ 475,532.70
5030	Technicians	\$ 184,458.13	\$ 2,245,279.97	\$ 2,060,821.84
5031	Seasonal Helpers	\$ 61,547.89	\$ 380,004.50	\$ 318,456.61
5040	Biological Control: Lab Dept	\$ 80,321.46	\$ 984,317.64	\$ 903,996.18
5041	Biological Control: Fisheries Dept	\$ 20,202.66	\$ 248,082.88	\$ 227,880.22
5045	Trustee Monthly Meeting	\$ 1,291.80	\$ 16,793.40	\$ 15,501.60
5200	OPERATIONAL	\$ 1,115,355.42	\$ 6,478,412.05	\$ 5,363,056.63
5210	LIABILITY INSURANCE	\$ 161,762.05	\$ 171,762.05	\$ 10,000.00
5250	AUDITING/FISCAL	\$ -	\$ 17,750.00	\$ 17,750.00
5270	COMMUNICATIONS	\$ 4,439.63	\$ 79,500.00	\$ 75,060.37
5310	PUBLIC INFORMATION	\$ 2,338.16	\$ 502,500.00	\$ 500,161.84
5340	STRUCTURE & GROUNDS	\$ 7,764.93	\$ 65,000.00	\$ 57,235.07
5370	MEMBER/TRAINING	\$ 26,219.00	\$ 113,000.00	\$ 86,781.00
5390	DISTRICT OFFICE EXPENSES	\$ 759.43	\$ 17,500.00	\$ 16,740.57
5430	PROFESSIONAL SERVICES	\$ 9,896.11	\$ 203,250.00	\$ 193,353.89
5440	MATERIALS & SUPPLIES	\$ 2,336.37	\$ 13,000.00	\$ 10,663.63
5450	RENTS & LEASES	\$ 589.26	\$ 11,550.00	\$ 10,960.74
5470	SAFETY PROGRAM	\$ -	\$ 5,000.00	\$ 5,000.00
5480	UTILITIES	\$ 8,242.78	\$ 110,000.00	\$ 101,757.22
6120	AIRCRAFT SERVICES	\$ 37,346.32	\$ 955,000.00	\$ 917,653.68
6140	ECOLOGICAL MANAGEMENT	\$ 63.44	\$ 18,600.00	\$ 18,536.56
6160	MICROBIAL	\$ 458,931.39	\$ 1,550,000.00	\$ 1,091,068.61
6170	BIORATIONALS	\$ 189,987.43	\$ 1,000,000.00	\$ 810,012.57
6180	INSECTICIDES	\$ 153,892.86	\$ 1,100,000.00	\$ 946,107.14
6220	FISHERIES	\$ 383.53	\$ 27,000.00	\$ 26,616.47
6280	GEOGRAPHIC INFO SYSTEMS	\$ -	\$ 9,100.00	\$ 9,100.00
6320	INFORMATION TECHNOLOGY	\$ 6,379.00	\$ 68,500.00	\$ 62,121.00
6350	CONTROL OPERATIONS	\$ 2,035.15	\$ 40,200.00	\$ 38,164.85
6370	SHOP	\$ 12,050.99	\$ 98,000.00	\$ 85,949.01
6420	LAB SERVICES	\$ 16,267.09	\$ 148,200.00	\$ 131,932.91
6450	GAS & PETROLEUM	\$ 13,670.50	\$ 154,000.00	\$ 140,329.50
7000	CAPITAL ACCOUNTS	\$ -	\$ 615,651.27	\$ 615,651.27
7011/1510	Capital Outlay/Construction In Progress	\$ -	\$ 233,000.00	\$ 233,000.00
7030	Contingency	\$ -	\$ 72,651.27	\$ 72,651.27
7030	Research Fund	\$ -	\$ 25,000.00	\$ 25,000.00
7035	Building Improvement	\$ -	\$ 285,000.00	\$ 285,000.00
	TOTALS			
	Salaries/Benefits	\$ 1,481,809.34	\$ 8,793,710.68	\$ 7,311,901.34
	Operational	\$ 1,115,355.42	\$ 6,478,412.05	\$ 5,363,056.63
	Capital Accounts	\$ -	\$ 615,651.27	\$ 615,651.27
	Total Budget	\$ 2,597,164.76	\$ 15,887,774.00	\$ 13,290,609.24

SYC Balance Sheet
As of 7/31/2020

Sacramento Yolo MVCD (SYC)

Assets

Current Assets

Cash in Bank-FSA	36,712.58	
Cash with LAIF	11,736,311.44	
Petty Cash	600.00	
US Bank	(1,456,554.49)	
Accounts Receivable	1,056.57	
Assigned - Cash With VCJPA	1,520,371.00	
Inventory	933,041.51	
Total Current Assets:		12,771,538.61

Fixed Assets

LAND, BLDG., IMPROVEMENT	1,175,092.88	
EQUIPMENT	4,280,678.04	
BOND ROAD	5,061,395.00	
WOODLAND FACILITY	708,574.00	
ACCUMULATED DEPRECIATION	(6,650,388.20)	
Total Fixed Assets:		4,575,351.72

Other Assets

Deferred Outflows of Resources	7,419,528.00	
Deferred Outflows of Resources-GASB 75	427,109.00	
Total Other Assets:		7,846,637.00
Total Assets:		25,193,527.33

Liabilities

Current Liabilities

Accounts Payable	964,931.07	
Payroll Taxes Payable	(0.30)	
Voluntary TL & AD&D	(643.93)	
Voluntary STD	(459.92)	
FSA Deductions	116,177.38	
P.E.R.S. Deductions	(1.04)	
Safety Program	(1,530.00)	
Accumulated Vacation	417,766.45	
Total Current Liabilities:		1,496,239.71

Long-Term Liabilities

Net Pension Liability	13,470,191.00	
Net OPEB Liability	1,151,973.00	
Deferred Inflow of Resources	1,197,703.00	
Deferred Inflow of Resources-GASB 75	101,685.00	
Total Long-Term Liabilities:		15,921,552.00
Total Liabilities:		17,417,791.71

Equity

INVESTMENT IN FIX ASSETS	4,575,351.96	
RESERVED CASH (INS.)	1,520,371.00	
Committed-Capital Outlay	700,000.00	
Unassigned - Dry Financing	6,000,000.00	
GENERAL FUND	(4,425,583.38)	
Retained Earnings-Current Year	(2,594,403.96)	
Committed - Vector/Disease Response	2,000,000.00	
Total Equity:		7,775,735.62
Total Liabilities & Equity:		25,193,527.33

1. Items for Approval by General Consent:

- c. Actuarial Valuation of Other Post-Employment Benefit Programs as of June 30, 2019

Staff Report

Staff engaged MacLeod Watts for the bi-annual valuation of Other Post-Employment Benefits (OPEB) for the California Employers' Retirement Benefit Trust Fund (CERBT). GASB 45 and 75 require the District to make certain financial disclosures for OPEB. Attached is the Valuation Report as of June 30, 2019 which provides the GASB 45/75 information to be reported in the District financial statements for fiscal years 20-21 and 21-22.

The District pays the active and retiree premiums, which have historically been more than the Actuarially Determined Contribution (ADC), directly to the insurance providers. In years where the direct payments exceed the ADC the District has the option to seek reimbursement from the CERBT, and in years where the direct payments are under the ADC the District can choose to make a contribution to ensure the funded status of the Explicit Subsidy remains at or above 100%.

The valuation report requires agencies to recognize and report the Explicit and Implicit Subsidies. The explicit subsidy costs of the OPEB plan are that portion of the premiums charged by the insurance company which are not covered by the payments made by the retirees. The District explicit subsidy is over 100% funded at 108.9% as illustrated in the chart below.

Explicit Liabilities Only

Valuation Date	6/30/2017	6/30/2019
Actuarial Accrued Liability (AAL)	1,631,407	1,723,327
Market Value of Assets	1,675,280	1,876,355
Unfunded (Surplus) AAL	(43,873)	(153,028)
Funded Ratio of Explicit Liability	102.7%	108.9%

See page 9 of the 6/30/2019 valuation report

An "implicit subsidy" liability exists when the premiums charged for retiree coverage are lower than the expected retiree claims for that coverage. The District covers or "subsidizes" the retiree only premiums until the retiree is eligible for Medicare at age 65. The Implicit subsidy is 0% funded bringing the combined funded total to 57.8%.

Recommendation:

Accept the Actuarial Valuation of Other Post-Employment Benefit Programs as of June 30, 2019

MacLeod Watts

July 24, 2020

Mr. Gary Goodman
General Manager
Sacramento-Yolo Mosquito & Vector Control District
8631 Bond Road
Elk Grove, CA 95624

Re: June 30, 2019 Actuarial Valuation: Determination of OPEB Funding Contributions

Dear Mr. Goodman:

We are pleased to enclose our report providing the results of the June 30, 2019 actuarial funding valuation of other post-employment benefit (OPEB) liabilities for the Sacramento-Yolo Mosquito & Vector Control District. The report's text describes our analysis and assumptions in detail.

The primary purposes of this report are to:

1. Value plan liabilities as of June 30, 2019 and reconcile plan liabilities to those in the District's prior 2017 valuation.
2. Develop Actuarially Determined Contributions (ADCs) for FYE 2021 and 2022, using a long-term trust earnings rate of 5.4%.
3. Provide a report to be submitted to the California Employers' Retiree Benefit Trust (CERBT) to satisfy filing requirements for the trust.

Separate annual GASB 75 reports will be provided to assist with financial reporting requirements.

We have based our valuation on employee data and plan information provided by the District, including the most recent bargaining agreements and Memorandums of Understanding. Please review Section L to ensure that we have summarized the plan's benefit provisions correctly.

We appreciate the opportunity to work on this analysis and thank you and other District staff for their time and assistance. Please let us know if we can be of further assistance.

Sincerely,



J. Kevin Watts, FSA, FCA, MAAA
Principal & Consulting Actuary



Sacramento-Yolo
Mosquito & Vector Control District

Actuarial Valuation of Other
Post- Employment Benefit Programs
Development of OPEB Funding Contributions

As of June 30,2019

Submitted July 2020

MacLeod Watts

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A. Executive Summary

This report presents the results of the June 30, 2019 actuarial valuation of the Sacramento-Yolo Mosquito & Vector Control District (the District) defined benefit other post-employment benefit (OPEB) program. The primary purpose of this valuation is to assess the defined benefit OPEB liabilities of the District and develop contribution levels for the funding of these benefits. OPEB information relevant to reporting in the District's financial statements will be provided in separate annual reports.

This report reflects the valuation of two distinct types of OPEB liability:

- An "explicit subsidy" liability exists when the employer contributes directly toward the cost of retiree healthcare. These benefits include a monthly subsidy toward medical coverage for eligible retirees. Section L provides a more thorough description.
- An "implicit subsidy" liability exists when the premiums charged for retiree coverage are lower than the expected retiree claims for that coverage. The District's OPEB program includes implicit subsidy liabilities for retiree medical coverage prior to coverage under Medicare.

Trust assets are currently invested in the CERBT with Asset Allocation Strategy 3 and the District's policy is to contribute at least 100% of the Actuarially Determined Contribution each year. Based on future District-specific benefit cash flows and investment return information published by CalPERS, the estimated long-term trust return is 5.5% (5.4% net of administrative fees). Please recognize that use of this rate is an assumption and is not a guarantee of future investment performance. See Section E for more information regarding the development of the long-term expected return.

Exhibits presented in this report apply the results of this June 30, 2019 valuation to develop the Actuarially Determined Contributions (ADCs) for the District's use in the funding of this benefit program. These ADCs are will also be reflected in the District's financial disclosures under GASB 75 for fiscal years ending June 30, 2021 and 2022.

In the chart below, the plan funded status as of June 30, 2019 is compared to the June 30, 2017 valuation. The funded ratio has decreased from 63.1% in 2017 to 57.8% in 2019 due primarily to the drop in expected long-term return on assets. More valuation results are presented in Section G.

Valuation Date	6/30/2017	6/30/2019
Discount Rate	6.12%	5.40%
Actuarial Accrued Liability (AAL)		
Active employee liability	\$ 1,677,264	\$ 2,192,710
Retiree liability	978,178	1,055,800
Total AAL	\$ 2,655,442	\$ 3,248,510
Market value of assets	1,675,280	1,876,355
Unfunded Actuarial Accrued Liability	980,162	1,372,155
Funded Ratio	63.1%	57.8%

The liabilities shown in the report reflect assumptions regarding continued future employment, rates of retirement and survival, and elections by future retirees to elect coverage for themselves and their dependents. Please note that this valuation has been prepared on a closed group basis; no provision is generally made for new employees until the valuation date following their employment.



Executive Summary

(Concluded)

The Actuarially Determined Contributions for fiscal years ending June 30, 2020, June 30, 2021, and June 30, 2022 are shown below. Detailed results are developed in Section H.

Fiscal Year End <i>Valuation Date</i>	6/30/2020 6/30/2017	6/30/2021 6/30/2019	6/30/2022 6/30/2019
Contributing the ADC			
Total ADC Payable	\$ 153,992	\$ 239,305	\$ 246,485
<i>Credits:</i>			
Implicit subsidy payment	(29,740)	(49,423)	(58,434)
Retiree benefits paid by SYMVCD*	(94,374)	(118,682)	(130,688)
Estimated contribution to (refund from) trust	\$ 29,878	\$ 71,200	\$ 57,363

*Actual 2020 provided by District on 7/1/2020

An actuarial valuation is a complex, long term projection and to the extent that future plan experience is not what was assumed, future results will be different. Future differences may arise for many reasons, including but not limited to the following: 1) a significant change in the number of covered or eligible plan members; 2) a significant increase or decrease in the future medical premium rates; 3) a change in the subsidy provided by the District toward retiree medical premiums; 4) significant changes in expected retiree healthcare claims by age, relative to healthcare claims for active employees and their dependents; 5) higher or lower returns on plan assets or contribution levels other than were assumed.

Details of our valuation process are provided on the following pages. Key terms used in the report are described throughout the report and in the Glossary. Certain actuarial terms used for plan funding have parallel terms with different names when used for GASB 75 reporting (see table on page 6). This can be confusing when comparing results from an actuarial report providing funding information compared to one prepared for accounting purposes.

The next actuarial valuation is scheduled to be prepared as of June 30, 2021. If there are any significant changes in the employee data, benefits provided to retirees, or in the District's funding policy, please contact us to discuss whether an earlier valuation is appropriate.

Important Notices

This report is intended to be used only to present the actuarial information relating to the District's other postemployment benefits and to provide the annual contribution information with respect to the District's current OPEB funding policy. The results of this report may not be appropriate for other purposes, including financial reporting purposes under GASB 75, where other assumptions, methodology and/or actuarial standards of practice may be required or more suitable. Some issues in this report may involve analysis of applicable law or regulations. The District should consult counsel on these matters; MacLeod Watts does not practice law and does not intend anything in this report to constitute legal advice.



B. OPEB Obligations of the District

The District provides continuation of medical coverage to its retiring employees. These benefits may create one or more of the following types of OPEB liabilities:

- **Explicit subsidy liabilities:** A direct employer payment toward the cost of OPEB benefits is referred to as an “explicit subsidy”. The District contributes directly toward retiree premiums as described in Section L. These benefits are included in this valuation.
- **Implicit subsidy liabilities:** An “implicit subsidy” exists when the premiums charged for retiree coverage are lower than the expected retiree claims for that coverage. In the District’s program, the claims experience of active employees and retirees not covered by Medicare is co-mingled in setting premium rates for some members. Medical premiums for members under age 65 covered by the Western Health and Sutter Health Plans vary by age and are assumed to be adequate to cover expected claims at each age. However, premiums charged for (1) retirees under age 65 covered by a Kaiser plan and (2) retirees over age 65 and not eligible for coverage under Medicare who are covered by Kaiser, Western Health or Sutter Health are assumed to give rise to an implicit subsidy.

Where applicable, we determine the implicit rate subsidy as the projected difference between (a) retiree medical claim costs by age and (b) premiums charged for retiree coverage. For more information on this process see Section 3 and Addendum 2: MacLeod Watts Age Rating Methodology.

Additional background information can be found in Addendum 1.



C. Funding Policy of the District

The District has committed to contributing the full Actuarially Determined Contribution (ADC) amount by making regular contributions to the trust to prefund plan benefits.

ADCs are developed as the sum of:

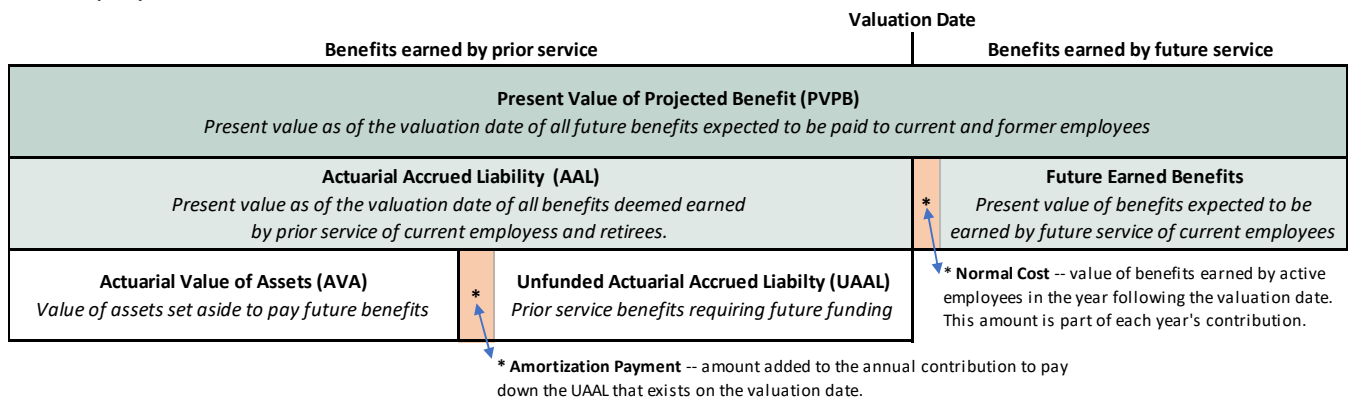
- 1) the normal cost for the year. The normal cost is the value of benefits earned during the year by active employees; and
- 2) an amortization payment on the unfunded actuarial accrued liability. Benefits earned in prior periods that remain unfunded are funded over time. The amortization period is 19 years for 2020, decreasing by 1 each following year.



D. The Valuation Process

This valuation is based on employee census data and benefits initially submitted to us by the District in June 2020 and clarified in various related communications. A summary of the employee data is provided in Section K and a summary of the benefits provided under the Plan is provided in Section L. While individual employee records have been reviewed to verify that they are reasonable in various respects, the data has not been audited and we have otherwise relied on the District as to its accuracy. The valuation has been performed in accordance with the process described below using the actuarial methods and assumptions described in Section M and is consistent with our understanding of Actuarial Standards of Practice.

In projecting benefit values and liabilities, we first determine an expected premium or benefit stream over each current retiree's or active employee's future retirement. Benefits may include both direct employer payments (explicit subsidies) and any implicit subsidies arising when retiree premiums are expected to be partially subsidized by premiums paid for active employees. The projected benefit streams reflect assumed trends in the cost of those benefits and assumptions as to the expected dates when benefits will end. Assumptions regarding the probability that each employee will remain in service to receive benefits and the likelihood the employee will elect coverage for themselves and their dependents are also applied. We then calculate a present value of these future benefit streams by discounting the value of each future expected employer payment back to the valuation date using the valuation discount rate. This present value is called the **Present Value of Projected Benefits (PVPB)** and represents the current value of all expected future plan payments to current retirees and current active employees. Note that this long-term projection does not anticipate entry of future employees.



The next step in the valuation process splits the Present Value of Projected Benefits into 1) the value of benefits already earned by prior service of current employees and retirees and 2) the value of benefits expected to be earned by future service of current employees. Actuaries employ an "attribution method" to divide the PVPB into prior service liabilities and future service liabilities. For this valuation we used the **Entry Age Normal** attribution method. This method is the most common used for government funding purposes and the only attribution method allowed for financial reporting under GASB 75.

We call the value of benefits deemed earned by prior service the **Actuarial Accrued Liability (AAL)**. Benefits deemed earned by service of active employees in a single year is called the **Normal Cost** of benefits. The present value of all future normal costs (PVFNC) plus the Actuarial Accrued Liability will equal the Present Value of Projected Benefits (i.e. $PVPB = AAL + PVFNC$).



Valuation Process

(Concluded)

The District has committed to making regular contributions to a trust in order to prefund plan benefits. Trust contributions and earnings accumulate so that the trust can make benefit payments to retirees (or reimburse the District for making those payments directly). The difference between the value of trust assets (i.e. the Market Value of Assets and the Actuarial Accrued Liability yields the **Unfunded Actuarial Accrued Liability (UAAL)**. The UAAL represents, as of the valuation date, the present value of benefits already earned by past service that remain unfunded. A plan is generally considered “fully funded” when the UAAL is zero. The plan sponsor of a fully funded plan will still need to make future contributions for benefits earned by future service of active employees. But in a fully funded plan, the plan sponsor has set aside sufficient assets to pay for benefits that have been earned by past service of current retirees and active employees if all valuation assumptions are realized.

Future contributions by the District will fund 1) the remaining part of OPEB benefits earned by past service (the Unfunded Actuarial Accrued Liability) and 2) the value of benefits earned each year by service of active employees (i.e. annual Normal Costs). Various strategies might be employed to pay down the UAAL such as longer or shorter amortization payments, and flat or escalating payments depending on the plan sponsors goals and funding philosophy.

Please note that projections of future benefits over long periods which are dependent on numerous assumptions regarding future economic and demographic variables are subject to substantial revision as future events unfold. While we believe that the assumptions and methods used in this valuation are reasonable for the purposes of this report, the costs to the District reflected in this report are subject to future revision, perhaps materially. Demonstrating the range of potential future plan costs was beyond the scope of our assignment except to the limited extent of providing liability information at various discount rates.

Finally, certain actuarial terms and GASB 75 terms may be used interchangeably. We note a few in the table below.

Actuarial Terminology	GASB 75 Terminology
Present Value of Projected Benefits (PVPB)	<i>No equivalent term</i>
Actuarial Accrued Liability (AAL)	Total OPEB Liability (TOL)
Market Value of Assets (MVA)	Fiduciary Net Position
Actuarial Value of Assets (AVA)	<i>No equivalent term</i>
Unfunded Actuarial Accrued Liability (UAAL)	Net OPEB Liability
Normal Cost	Service Cost



E. Choosing the Valuation Discount Rate

We derived the expected long-term return on trust assets from information published by CalPERS. CalPERS determined its returns using a building-block method and best-estimate ranges of expected future real rates of return for each major asset class (expected returns, net of OPEB plan investment expense and inflation). The target allocations and best estimates of geometric real rates of return published by CalPERS for Strategy 3 for each major class are summarized in the following table:

CERBT Strategy 3		Years 1-10			Years 11+		
Major Asset Classification	Target Allocation	General Inflation Rate Assumption	1-10 Year Expected Real Rate of Return*	Compound Return Yrs 1-10	General Inflation Rate Assumption	11+ Year Expected Real Rate of Return*	Compound Return Years 11+
Global Equity	22%	2.00%	4.80%	6.80%	2.92%	5.98%	8.90%
Fixed Income	49%	2.00%	1.10%	3.10%	2.92%	2.62%	5.54%
Global Real Estate(REITs)	8%	2.00%	3.20%	5.50%	2.92%	5.00%	7.92%
Treasury Inflation Protected Securities	16%	2.00%	0.25%	2.25%	2.92%	1.46%	4.38%
Commodities	5%	2.00%	1.50%	3.50%	2.92%	2.87%	5.79%
Volatility	7.28%	weighted		5.00%	weighted		6.22%

*Real rates of return come from a geometric representation of returns that assume a general inflation rate of 2.00%.

Currently, CalPERS' expected returns are split for years 1-10 and years 11 and thereafter. To derive the expected return specific to the District, we projected plan benefits in each future year. Then applying the plan specific benefit payments to CalPERS' bifurcated return expectations, we determined the single equivalent long-term rate of return that would be equivalent to the bifurcated return expectations of CalPERS. That long-term return was 5.5%. CalPERS has indicated that CERBT should expect 10 basis points in trust administrative fees, so that rate is reduced to 5.4%.

The valuation discount rate is then set equal to the long-term return expected to be earned by the trust. This methodology of setting the valuation discount rate equal to the long-term trust return is consistent with the "level cost actuarial methodology" recommended by the California Actuarial Advisory Panel. Level cost funding "... is characterized by economic assumptions based on the long term expected experience of the plan ... in contrast to a 'market based actuarial methodology' where economic assumptions are based on current market observations..."¹

¹ See "Actuarial Funding Policies and Practices for Public Pension and OPEB Plans", November 2015, California Actuarial Advisory Panel.



F. Asset Values as of June 30, 2019

The District's plan assets are invested in the California Employers' Retiree Benefits Trust (CERBT) Asset Strategy 3. The June 30, 2019 audit of CERBT assets reported the following value for the District's account on that date:

Market Value of Trust Assets, 6/30/2019	\$1,876,355
--	--------------------

This value is also appropriate for use in GASB 75 financial reporting (i.e. Fiduciary Net Position).



G. Valuation Results as of June 30, 2019

The following chart compares the results of the June 30, 2019 valuation of OPEB liabilities to the results of the June 30, 2017 valuation.

Valuation Date	6/30/2017			6/30/2019		
Discount rate	6.12%			5.40%		
Number of Covered Employees						
Actives	65			68		
Retirees	10			10		
Total Participants	75			78		
Subsidy	Explicit	Implicit	Total	Explicit	Implicit	Total
Actuarial Present Value of Projected Benefits						
Actives	\$ 1,736,697	\$ 742,755	\$ 2,479,452	\$ 2,114,934	\$ 1,615,355	\$ 3,730,289
Retirees	473,124	505,054	978,178	506,476	549,324	1,055,800
Total APVPB	2,209,821	1,247,809	3,457,630	2,621,410	2,164,679	4,786,089
Actuarial Accrued Liability (AAL)						
Actives	1,158,283	518,981	1,677,264	1,216,851	975,859	2,192,710
Retirees	473,124	505,054	978,178	506,476	549,324	1,055,800
TOTAL AAL	1,631,407	1,024,035	2,655,442	1,723,327	1,525,183	3,248,510
Market Value of Assets			1,675,280			1,876,355
Unfunded Actuarial Accrued Liability (UAAL)			980,162			1,372,155
Normal Cost						
For the period following the valuation date	53,263	20,929	74,192	73,405	54,101	127,506

The ratio of the Assets to the Actuarial Accrued Liability is 57.8%, down from 63.1% as of June 30, 2017.



Valuation Results as of June 30, 2019

(Continued)

Changes Since the Prior Funding Valuation

Even if all prior assumptions were exactly realized, liabilities often increase over time as active employees get closer to the date their benefits are expected to begin. Given the uncertainties involved and the long-term nature of these projections, prior assumptions are not likely ever to be exactly realized. Nonetheless, it is helpful to review why results are different than may have been anticipated.

Funding Valuation Reconciliation	Actuarial Accrued	Market Value of Assets	Unfunded Actuarial
As of June 30, 2017 Funding Valuation <i>@ 6.12% discount rate</i>	\$ 2,655,442	\$ 1,675,280	\$ 980,162
Changes During the 2017-2018 Period:			
Service Cost	74,193		74,193
Interest Cost	161,764		161,764
Benefit Payments	(172,880)		(172,880)
Employer Contributions		-	-
Investment Income		78,639	(78,639)
Trust Expenses		(3,084)	3,084
As of June 30, 2018	\$ 2,718,519	\$ 1,750,835	\$ 967,684
Changes During the 2018-2019 Period:			
Service Cost	76,604		76,604
Interest Cost	167,673		167,673
Benefit Payments	(110,744)		(110,744)
Employer Contributions		-	-
Investment Income		125,897	(125,897)
Trust Expenses		(377)	377
<i>Plan experience (gain) loss:</i>			-
Actual premiums reflected in new valuation	124,084		124,084
Other plan experience	134,272		134,272
<i>Assumption changes:</i>			
Discount rate drop from 6.12% to 5.4%	224,755		224,755
Change in demographic, economic, and mortality assumptions	2,250		2,250
Changed medical trend to Getzen model	24,032		24,032
Elimination of excise tax liability	(133,398)		(133,398)
Changed salary scale increase from 3.25% to 3.0%	20,462		20,462
As of June 30, 2019 Funding Valuation <i>@ 5.4% discount rate</i>	\$ 3,248,509	\$ 1,876,355	\$ 1,372,154

In comparing results (see chart above), we see that the Unfunded Actuarial Accrued Liability (UAAL) increased by \$400,000 between June 30, 2017 and June 30, 2019, from \$967,684 to \$1,372,155. Based on normal plan operations and actual trust contributions and benefit payments, we expected a decrease in UAAL of about \$4,000 leaving an unexpected increase of about \$404,000. The unexpected increase is due to the following: plan experience - \$258,356; assumptions changes - \$138,101; asset returns lower than expected - \$10,254. Note: *Other Plan Experience* includes actual retirements, terminations, and participant elections different than assumed.



H. Development of Actuarially Determined Contributions

The basic results of our June 30, 2019 valuation of OPEB liabilities for the District were summarized in Section G. Those results are applied to develop the actuarially determined contribution (ADC) for the fiscal years ending June 30, 2021 and June 30, 2022, as shown in the table below.

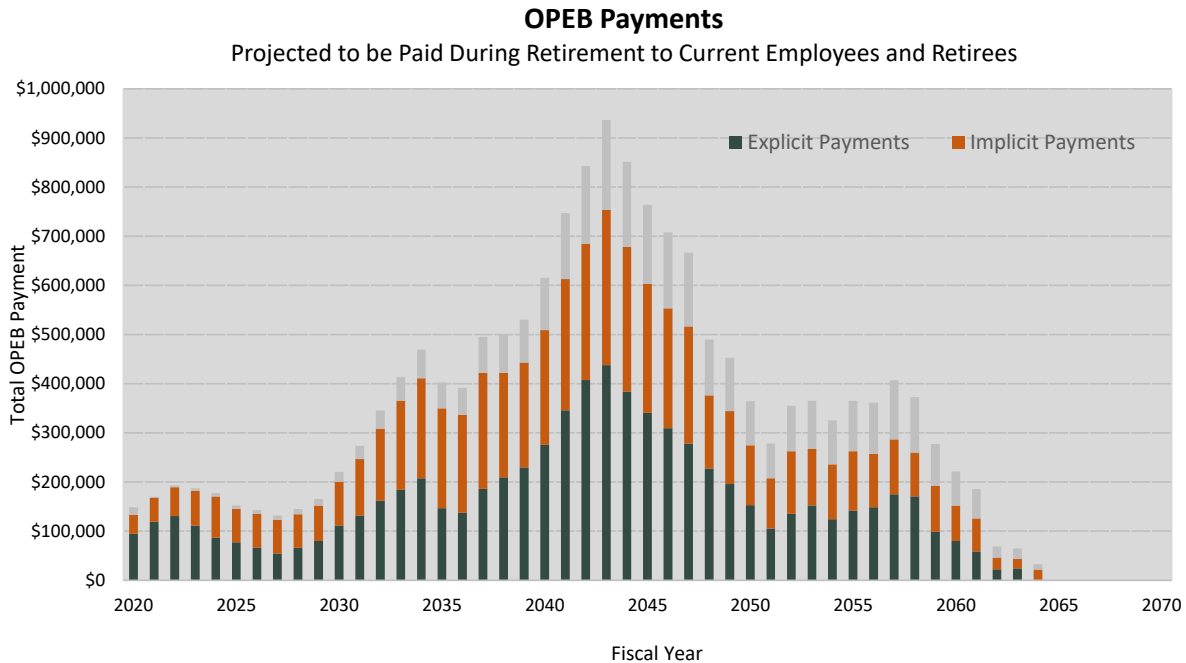
Fiscal Year End <i>Valuation Date</i>	6/30/2020 6/30/2017	6/30/2021 6/30/2019	6/30/2022 6/30/2019
Discount Rate	5.40%	5.40%	5.40%
Actuarial Accrued Liability	3,248,509	3,430,855	3,581,900
Market Value of Assets	1,876,355	2,004,205	2,179,093
Unfunded Actuarial Accrued Liability	1,372,154	1,426,650	1,402,807
Amortization Method	Developed in June 2017 Funding Valuation Report	Level % of Pay	Level % of Pay
Amortization Period		18	17
Amortization Factor		14.905285	14.229291
Actuarially Determined Contribution (ADC)			
Normal Cost		131,331	135,271
Amortization of Unfunded Liability		95,714	98,586
Interest to end of year		12,260	12,628
Total ADC		239,305	246,485
Contributing the ADC			
Total ADC Payable	\$ 153,992	\$ 239,305	\$ 246,485
<i>Credits:</i>			
Implicit subsidy payment	(29,740)	(49,423)	(58,434)
Retiree benefits paid by SYMVCD*	(94,374)	(118,682)	(130,688)
Estimated contribution to (refund from) trust	\$ 29,878	\$ 71,200	\$ 57,363

*Actual 2020 provided by District on 7/1/2020



I. Projected Annual Benefit Payments

Section D discussed how the starting point of the valuation process is developing a long-term projection of OPEB plan benefits. The graph below shows the long-term projected benefit payments used in the development of this report's valuation results.



Based on all the assumptions described in this report, total OPEB payments are expected to increase to a maximum of about \$753,000 in 2029. Explicit retiree benefit subsidies are expected to increase to about \$438,000 by 2042 and then gradually decline over time.

Note the lighter grey shadow over the total projected benefit payments. The additional amount indicated by the grey bars is the amount that would become payable if future medical trend increases are 1% higher in all years than assumed in this report. The shadowy increase shown is indicative of the risk of future cost changes should the report's assumptions not be realized.

The chart on the following page shows, in table form and more detail, the post-employment benefits illustrated in the chart above for the first 15 years.



Projected Annual Benefit Payments

(Concluded)

These projections do not include any benefits expected to be paid on behalf of current active employees *prior to* retirement, nor do they include any benefits for potential *future employees* (i.e., those who might be hired in future years).

Projected Annual Benefit Payments							
Fiscal Year Ending June 30	Explicit Subsidy			Implicit Subsidy			Total
	Current Retirees	Future Retirees	Total	Current Retirees	Future Retirees	Total	
2020	\$ 94,374	\$ -	\$ 94,374	\$ 29,740	\$ -	\$ 29,740	\$ 124,114
2021	108,084	10,598	118,682	35,121	14,302	49,423	168,105
2022	115,263	15,425	130,688	39,586	18,848	58,434	189,122
2023	91,471	19,684	111,155	44,428	26,053	70,481	181,636
2024	63,109	23,656	86,765	49,677	33,896	83,573	170,338
2025	55,279	21,744	77,023	42,268	25,718	67,986	145,009
2026	28,968	37,550	66,518	33,158	35,081	68,239	134,757
2027	12,252	42,115	54,367	36,473	32,204	68,677	123,044
2028	12,772	52,961	65,733	39,959	28,631	68,590	134,323
2029	-	79,869	79,869	26,895	45,093	71,988	151,857
2030	-	111,267	111,267	28,683	60,379	89,062	200,329
2031	-	131,432	131,432	30,456	84,597	115,053	246,485
2032	-	161,922	161,922	32,186	114,233	146,419	308,341
2033	-	184,048	184,048	33,821	147,650	181,471	365,519
2034	-	207,013	207,013	35,303	168,557	203,860	410,873

The amounts shown above as Explicit Subsidy reflect the expected payment by the District toward retiree medical premiums in each of the years shown. The amounts are shown separately, and in total, for those retired on the valuation date ("current retirees") and those expected to retire after the valuation date ("future retirees").

The amounts shown above as Implicit Subsidy reflect the expected excess of retiree medical (and prescription drug) claims over the premiums expected to be charged during the year for retirees' coverage. These amounts are also shown separately and in total for those currently retired on the valuation date and for those expected to retire in the future.

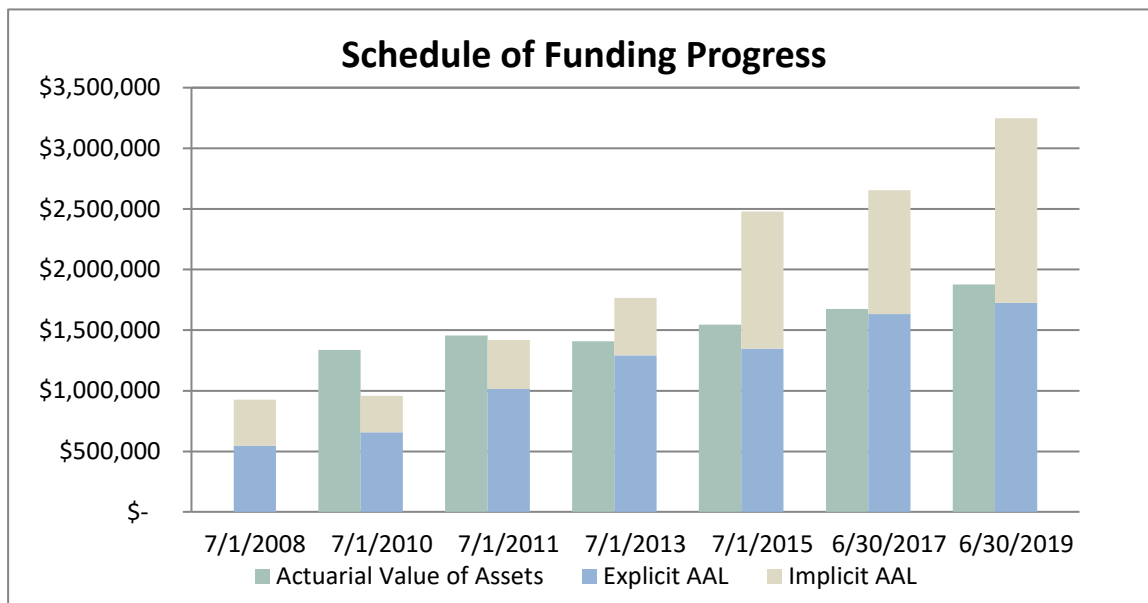


J. Historical Information

In this section, we provide a review of key components of valuation results from 2010 through 2019.

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)	Discount Rate
7/1/2008	\$ -	\$ 924,764	\$ 924,764	0.0%	\$ 3,944,664	23.4%	7.75%
7/1/2010	\$ 1,336,551	\$ 957,460	\$ (379,091)	139.6%	\$ 4,207,968	-9.0%	7.75%
7/1/2011	\$ 1,455,508	\$ 1,418,215	\$ (37,293)	102.6%	\$ 4,235,796	-0.9%	6.39%
7/1/2013	\$ 1,406,810	\$ 1,766,610	\$ 359,800	79.6%	\$ 4,289,052	8.4%	6.39%
7/1/2015	\$ 1,544,506	\$ 2,477,416	\$ 932,910	62.3%	\$ 4,121,832	22.6%	6.12%
6/30/2017	\$ 1,675,280	\$ 2,655,442	\$ 980,162	63.1%	\$ 5,067,381	19.3%	6.12%
6/30/2019	\$ 1,876,355	\$ 3,248,509	\$ 1,372,154	57.8%	\$ 4,851,189	28.3%	5.40%



Significant changes during this period include:

- **July 1, 2011:** Decrease in discount rate from 7.75% to 6.39%; update to demographic assumptions to 2010 CalPERS experience study; updated healthcare trend
- **July 1, 2015:** Decrease in discount rate from 6.39% to 6.12%; updated model for developing expected retiree claims (for implicit subsidy); 1st time (required) recognition of the implicit subsidy liability relating to WHA plans, recognition of higher implicit subsidy costs for Medicare-ineligible retirees; update to demographic assumptions to newer CalPERS study.
- **June 30, 2017:** Increase in liability from change in assumed long term healthcare trend, partially offset by lower projection of future mortality rate improvement and favorable plan experience
- **June 30, 2019:** Discount rate decreased from 6.12% to 5.4%; updated demographic assumptions; updated trend scale to the Getzen model; unfavorable plan experience



K. Summary of Employee Data

Active members: The District reported 68 active employees in the data provided to us for the June 2019 valuation. Of those, 21 are currently waiving District coverage. Age and service information is shown below:

Distribution of Benefits-Eligible Active Employees								
Current Age	Years of Service						Total	Percent
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up		
Under 25	3	1					4	6%
25 to 29	4	2	1				7	10%
30 to 34	3		3	2			8	12%
35 to 39		4	2	8			14	21%
40 to 44		1	2	6	1		10	15%
45 to 49				3	3	3	9	13%
50 to 54				5		2	7	10%
55 to 59		1	1	2		2	6	9%
60 to 64			1			1	2	3%
65 to 69			1				1	1%
70 & Up							0	0%
Total	10	9	11	26	4	8	68	100%
Percent	15%	13%	16%	38%	6%	12%	100%	

Valuation	June 2017	June 2019
Average Attained Age for Actives	42.8	41.2
Average Years of Service	11.5	10.8

Retired members: There are also 10 retirees currently receiving benefits under this program. Their ages are summarized in the chart below.

Retirees by Age		
Current Age	Total	Percent
Below 50	0	0%
50 to 54	0	0%
55 to 59	4	40%
60 to 64	5	50%
65 to 69	1	10%
70 to 74	0	0%
75 to 79	0	0%
80 & up	0	0%
Total	10	100%
Average Age:		
On 6/30/2019	60.5	
At retirement	57.00	



Summary of Employee Data (Concluded)

The chart to the right shows active plan members as of the valuation date, inactive plan members receiving benefits as of the valuation date and inactive plan members entitled to but not receiving benefits as of the valuation date level:

Summary of Plan Member Counts	
Number of active plan members	68
Number of inactive plan members currently receiving benefits	10
Number of inactive plan members entitled to but not receiving benefits	0

The chart below reconciles the number of actives and retirees included in the June 30, 2017 valuation of the District plan with those included in the June 30, 2019 valuation:

Reconciliation of District Plan Members Between Valuation Dates				
Status	Covered Actives	Waiving Actives	Covered Retirees	Total
Number reported as of June 30, 2017	41	24	10	75
New employees	10	1		11
Separated employees	(2)	(1)		(3)
New retiree, elected coverage	(2)	(1)	3	0
New retiree, ineligible for coverage		(1)		
Aged out of paid subsidy			(3)	
Previously covered, now waiving	(2)	2		0
Previously waiving, now covered	4	(4)		0
Deceased	(1)			(1)
Data corrections	(1)	1		0
Number reported as of June 30, 2019	47	21	10	78

Overall, the total population increased by 3 members during the two-year period between valuations.



L. Summary of Retiree Benefit Provisions

OPEB provided: The District reported following OPEB: retiree medical, dental, and vision coverage.

Access to coverage: This coverage is available for employees who retire from the District at age 55 or older with at least 20 years of service with the District.

District paid coverage: If a retiree continues coverage under a District medical plan, the District will pay 100% of the medical plan premium for the retiree until he or she reaches age 65 or until death, if earlier.

Retiree paid coverage: A retiree may elect these additional coverage options at his or her expense:

- Medical plan coverage for self after age 65
- Medical plan coverage for dependents, before and after Medicare eligibility
- Dental and/or vision coverage for self and/or dependents before and after Medicare eligibility.

Current premium rates: The 2020 monthly healthcare premium rates are shown in the charts below.

Kaiser Permanente Plans		
Coverage Level	High	Low
Employee Only	\$ 768.95	\$ 597.49
Employee + One	1,537.91	1,194.98
Employee + Family	2,176.14	1,690.89

	Western Health Advantage Gateway 20	Sutter Health Plus
Age		
50	\$ 676.44	\$ 707.47
51	706.36	738.76
52	739.32	773.22
53	772.64	808.08
54	808.63	845.71
55	844.61	883.34
56	883.62	924.14
57	923.01	965.34
58	965.05	1,009.31
59	985.88	1,031.09
60	1,027.92	1,075.06
61	1,064.28	1,113.09
62	1,088.14	1,138.05
63	1,118.06	1,169.34
64+	1,136.24	1,188.34

Benefits excluded from this valuation: If dental and/or vision coverage is selected, the retiree must pay 100% of the premiums. Since no OPEB liability is expected with respect to dental or vision coverage for retirees, neither is considered in this valuation. See Section L for additional discussion.



M. Summary of Actuarial Methods and Assumptions

Valuation Date	June 30, 2019
Funding Method	Entry Age Normal Cost, level percent of pay ²
Asset Valuation Method	Market value of assets
Long Term Return on Assets	5.5%, net of plan investment expenses and including inflation 5.4%, net of trust administrative fees
Discount Rate	5.4% for liabilities used to develop Actuarially Determined Contributions
Participants Valued	Only current active employees and retired participants and covered dependents are valued. No future entrants are considered in this valuation.
Salary Increase	3.0% per year. Since benefits do not depend on salary, this is used to allocate the cost of benefits between service years and to determine amortization payments for developing the Actuarially Determined Contributions.
General Inflation Rate	2.5% per year

Demographic actuarial assumptions used in this valuation are based on the 2017 experience study of the California Public Employees Retirement System using data from 1997 to 2015, except for a different basis used to project future mortality improvements. Rates for selected age and service are shown below and on the following pages. The representative mortality rates were those published by CalPERS adjusted to back out 15 years of Scale MP 2016 to central year 2015.

Mortality Improvement	MacLeod Watts Scale 2020 applied generationally from 2015 (see Addendum 3)
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Mortality Before Retirement
(before improvement applied)

CalPERS Public Agency Miscellaneous Non- Industrial Deaths		
Age	Male	Female
15	0.00019	0.00004
20	0.00027	0.00008
30	0.00044	0.00018
40	0.00070	0.00040
50	0.00135	0.00090
60	0.00288	0.00182
70	0.00693	0.00438
80	0.01909	0.01080

² The level percent of pay aspect of the funding method refers to how the normal cost is determined. Use of level percent of pay cost allocations in the funding method is separate from the determination of amortization payments.



Summary of Actuarial Methods and Assumptions

(Continued)

Mortality After Retirement
(before improvement applied)

Healthy Lives			Disabled Miscellaneous		
CalPERS Public Agency Miscellaneous, Police & Fire Post Retirement Mortality			CalPERS Public Agency Disabled Miscellaneous Post-Retirement Mortality		
Age	Male	Female	Age	Male	Female
40	0.00070	0.00040	20	0.00027	0.00008
50	0.00431	0.00390	30	0.00044	0.00018
60	0.00758	0.00524	40	0.00070	0.00040
70	0.01490	0.01044	50	0.01371	0.01221
80	0.04577	0.03459	60	0.02447	0.01545
90	0.14801	0.11315	70	0.03737	0.02462
100	0.35053	0.30412	80	0.07218	0.05338
110	1.00000	1.00000	90	0.16585	0.14826

Termination Rates

Miscellaneous Employees: Sum of Vested Terminated & Refund Rates From CalPERS Experience Study Report Issued December 2017						
Attained Age	Years of Service					
	0	3	5	10	15	20
15	0.1812	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.1742	0.1193	0.0654	0.0000	0.0000	0.0000
25	0.1674	0.1125	0.0634	0.0433	0.0000	0.0000
30	0.1606	0.1055	0.0615	0.0416	0.0262	0.0000
35	0.1537	0.0987	0.0567	0.0399	0.0252	0.0184
40	0.1468	0.0919	0.0519	0.0375	0.0243	0.0176
45	0.1400	0.0849	0.0480	0.0351	0.0216	0.0168



Summary of Actuarial Methods and Assumptions

(Continued)

Service Retirement Rates

The following miscellaneous retirement formulas apply:

If hired prior to 1/1/2013, Classic: 2.5% @ 55

If hired on or after 1/1/2013, PEPR: 2% @ 62

Sample rates of assumed future retirements applicable to each of these retirement benefit formulas are shown in tables below.

Sample rates of assumed future retirements for each of these retirement benefit formulas are shown in these tables. Rates shown reflect the probability that an employee at that age and service will retire from the District in the next 12 months

Miscellaneous Employees: 2.5% at 55 formula From CalPERS Experience Study Report Issued December 2017						
Current Age	Years of Service					
	5	10	15	20	25	30
50	0.0080	0.0140	0.0200	0.0260	0.0330	0.0500
55	0.0200	0.0380	0.0550	0.0730	0.1220	0.1920
60	0.0440	0.0720	0.1010	0.1300	0.1580	0.1970
65	0.1200	0.1560	0.1930	0.2290	0.2650	0.3330
70	0.1200	0.1560	0.1930	0.2290	0.2650	0.3330
75 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Miscellaneous "PEPRA" Employees: 2% at 62 formula From CalPERS Experience Study Report Issued December 2017						
Current Age	Years of Service					
	5	10	15	20	25	30
50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
55	0.0100	0.0190	0.0280	0.0360	0.0610	0.0960
60	0.0310	0.0510	0.0710	0.0910	0.1110	0.1380
65	0.1080	0.1410	0.1730	0.2060	0.2390	0.3000
70	0.1200	0.1560	0.1930	0.2290	0.2650	0.3330
75 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Disability Retirement Rates

None assumed; District does not have a current policy on disability retirement so no disability retirement probabilities were used.



Summary of Actuarial Methods and Assumptions

(Continued)

Healthcare Trend

Monthly medical plan premiums, benefit caps and projected claims costs by age are assumed to increase once each year. The increases over the prior year's levels are assumed to be effective on the dates shown below:

Effective January 1	Premium Increase	Effective January 1	Premium Increase
2020	Actual	2060-66	4.80%
2021	5.40%	2067	4.70%
2022	5.30%	2068	4.60%
2023-26	5.20%	2069	4.50%
2027-46	5.30%	2070-71	4.40%
2047	5.20%	2072	4.30%
2048-49	5.10%	2073-74	4.20%
2050-53	5.00%	2075	4.10%
2054-59	4.90%	2076 & later	4.00%

The healthcare trend shown on the prior page was developed using the Getzen Model 2019_b published by the Society of Actuaries using the following settings: short term rates from 2020-2022 6.5%, 6%, 5.5%; CPI 2.5%; Real GDP Growth 1.5%; Excess Medical Growth 1.2%; Expected Health Share of GDP in 2028 20.5%; Resistance Point 25%; Year after which medical growth is limited to growth in GDP 2075.

Participation Rate

Pre-65 Participation Rates: 100% of current employees and all current retirees under age 65 are assumed to elect coverage to age 65. Of those who are married, 40% are assumed to cover their spouse until the spouse attains age 65.

All Medicare-eligible retirees are assumed to end District plan participation at age 65 or at the age each is expected to subsequently qualify for Medicare, if later.

Medicare Eligibility

All individuals eligible for Medicare are assumed to participate in Parts A and B at age 65. Some employees and retirees not currently eligible for Medicare are expected to qualify through other current employment and/or spouse coverage. One current retiree is expected not to qualify for Medicare and will remain of the District's plans for the remainder of their lifetime.



Summary of Actuarial Methods and Assumptions

(Continued)

Development of Age-related Medical Premiums

Actual premium rates for retirees and their spouses were adjusted to an age-related basis by applying medical claim cost factors developed from the data presented in the report, “Health Care Costs – From Birth to Death”, sponsored by the Society of Actuaries. A description of the use of claims cost curves can be found in MacLeod Watts’s Age Rating Methodology provided in Addendum 2 to this report.

Representative claims costs for retirees covered by the **Kaiser** plans prior to Medicare appear in the chart below. In developing these factors for these plans, we assumed there were 1.8 children per participant covering children with an average age of 11.4 years. Actual spouse ages were used if available. Otherwise husbands were assumed to be 3 years older than their wives.

Kaiser Plans		
Retiree Age	Males	Females
55	\$ 1,116	\$ 1,224
57	1,228	1,283
59	1,343	1,354
61	1,463	1,442
63	1,593	1,546

Representative claims costs for retirees covered by the age-banded **Western Health Advantage** and **Sutter Health Plus** plans for ages 65 and above appear in the chart below. Claims costs for ages 64 and younger are assumed to equal the premiums charged for these plans (see rates in Section L).

Retiree Age	Western Health Adv		Sutter Health Plus	
	Male	Female	Male	Female
65	\$ 1,186	\$ 1,178	\$ 1,240	\$ 1,232
70	1,432	1,392	1,498	1,456
75	1,664	1,605	1,740	1,679
80	1,871	1,805	1,956	1,887
85	2,001	1,988	2,092	2,079
90	2,085	2,128	2,180	2,226



Summary of Actuarial Methods and Assumptions

(Continued)

Changes Since the Prior Valuation:

Trust rate of return and discount rate	Changed from 6.12% to 5.5% to reflect the expected long-term trust return, reduced by 10 basis points for annual trust administrative fees, resulting in a (net) rate of 5.4%.
Demographic assumptions	Assumed termination and retirement rates were updated from those provided in the CalPERS 1997-2015 experience study reports to the rates in the most recent available experience study (2017) of the CalPERS program.
Mortality improvement	Updated from MacLeod Scale 2017 to MacLeod Watts Scale 2020. See Addendum 3 for details.
General Inflation Rate	Decreased from 2.75% to 2.5%
Salary Increase	Decreased from 3.25% to 3.0% per year
Medical Trend	Updated to the Getzen model which was published by the Society of Actuaries
Excise tax on high-cost plans	Given the repeal of this provision of the Affordable Care Act in December 2019, we excluded any liability for this tax in the results presented in this report.



N. Certification

The purpose of this report is to provide actuarial information and potential contribution levels in conformity with the Sacramento-Yolo Mosquito & Vector Control District (the District) funding policy for the District's defined benefit other post-employment benefits. The District is not required to contribute the contributions developed in this report and we make no representation that the District will in fact fund the OPEB trust at any particular level.

In preparing this report we relied without audit on information provided by the District. This information includes, but is not limited to, plan provisions, census data, and financial information. We summarized the benefits in this report and our calculations were based on our understanding of the benefits as described herein. A limited review of this data was performed, and we found the information to be reasonably consistent. The accuracy of this report is dependent on this information and if any of the information we relied on is incomplete or inaccurate, then the results reported herein will be different from any report relying on more accurate information.

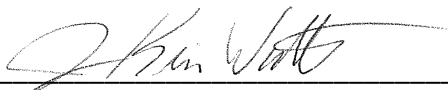
We consider the actuarial assumptions and methods used herein to be individually reasonable based on reasonable expectations of plan experience and the funding methodology adopted by the District. Expected returns used to develop the valuation discount rate were selected by the District based on information provided by CERBT. The results, and the assumptions on which they depend, provide an estimate of the plan's financial condition at one point in time. Future actuarial results may be significantly different for many reasons including, but not limited to, demographic and economic assumptions differing from future plan experience, changes in plan provisions, changes in applicable law, or changes in the value of plan benefits relative to other alternatives available to plan members.

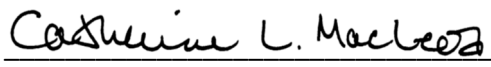
Alternative assumptions may also be reasonable; however, demonstrating the range of potential plan funding patterns based on alternative assumptions was beyond the scope of our assignment. Results based on other assumptions or funding strategies may be materially different and present materially different funding patterns.

This report is prepared solely for the use and benefit of the District and may not be provided to third parties without prior written consent of MacLeod Watts. Exceptions: The District may provide copies of this report to their professional accounting and legal advisors who are subject to a duty of confidentiality, to CERBT, and to any party if required by law or court order. No part of this report should be used as the basis for any representations or warranties in any contract or agreement without the written consent of MacLeod Watts.

The undersigned actuaries are unaware of any relationship that might impair the objectivity of this work. Nothing within this report is intended to be a substitute for qualified legal or accounting counsel. Both actuaries are members of the American Academy of Actuaries and meet the qualification standards for rendering this opinion.

Signed: July 24, 2020


J. Kevin Watts, FSA, FCA, MAAA


Catherine L. MacLeod, FSA, FCA, EA, MAAA



Addendum 1: Funding OPEB Liabilities

General Types of OPEB

Post-employment benefits other than pensions (OPEB) comprise a part of compensation that employers offer for services received. The most common OPEB are medical, prescription drug, dental, vision, and/or life insurance coverage. Other OPEB may include outside group legal, long-term care, or disability benefits outside of a pension plan. OPEB does not generally include COBRA, vacation, sick leave (unless converted to defined benefit OPEB), or other direct retiree payments.

A direct employer payment toward the cost of OPEB benefits is referred to as an “explicit subsidy”. In addition, if claims experience of employees and retirees are pooled when determining premiums, the retirees pay a premium based on a pool of members that, on average, are younger and generally healthier. For certain types of coverage, such as medical insurance, this pooling of claims experience results in the higher premiums paid for active employees than would be paid absent retiree coverage and lower premiums paid for retiree coverage than would be paid if the active employees were not pooled with retirees. The blending of premiums, then, results in an “implicit subsidy” of retiree premiums by active employee premiums. Actuarial Standards of Practice generally require any implicit subsidy be valued as an OPEB liability.

This chart shows the sources of funds needed to cover expected medical claims for pre-Medicare retirees.

Expected retiree claims		
Premium charged for retiree coverage		Covered by higher active premiums
Retiree portion of premium	Agency portion of premium Explicit subsidy	Implicit subsidy

Determining Funding Contributions

Contributions determined for the purpose of prefunding plan benefits generally consist of two components:

- The Normal Cost – the amount attributed to service performed in the current year
- An amortization payment used to systematically pay down the underfunded status of the plan. The amount to be paid down through additional amortization payments is the Unfunded Actuarial Accrued Liability (UAAL).

Amortization payments may use a variety of methods and time-periods to amortize each unfunded liability base. The only real requirement is to not make amortization periods so long that trust resources cannot pay retiree benefits when they come due.

Funding of the Implicit Subsidy

An implicit subsidy liability is created when retiree medical claims are expected to exceed the premiums charged for retiree coverage. Recognition of the estimated implicit subsidy each year is handled by an accounting entry, reducing the amount paid for active employees and shifting that amount to be treated as a retiree healthcare expense/contribution. The implicit subsidy is a true benefit to the retiree but can be difficult to see when medical premiums are set as a flat rate for both actives and pre-Medicare retirees. This might lead some employers to believe the benefit is not real or is merely an accounting construct, and thus to forgo prefunding of retiree implicit benefits.



Funding OPEB Liabilities

(Continued)

Funding of the Implicit Subsidy (continued)

However, consider what would happen if the retiree premiums were based only on expected retiree claims experience. Almost certainly, retiree premiums would increase while premiums for active employees would go down if the active premiums no longer had to help support the higher retiree claims. *Who would pay the increases in retiree premiums?* Current plan documents and bargaining agreements would have to be consulted. Depending on circumstances, the increase in retiree premiums might remain the responsibility of the employer, pass entirely to the retirees, or some blending of the two. The answer would determine whether separate retiree-only premium rates would result in a higher or lower employer OPEB liability. In the current premium structure, with blended active and pre-Medicare retiree premiums, the employer is clearly, though indirectly, paying the implicit retiree cost.

The prefunding decision is complex. OPEB materiality, budgetary concerns, desire to use the full trust rate in developing the liability for GASB 75, and other factors must be weighed by each employer. Since prefunding OPEB benefits is not required, each employer's OPEB prefunding strategy will depend on how they balance these competing perspectives.

Factors Impacting the Selection of a Cost Allocation Method

The ultimate real cost of an employee benefit plan is the value of all benefits and other expenses of the plan over its lifetime. These expenditures are dependent only on the terms of the plan and the administrative arrangements adopted, and as such are not affected by the actuarial funding method. The actuarial funding method attempts to spread recognition of these expected costs on a level basis over the life of the plan, and as such sets the "incidence of cost". Methods that produce higher initial annual (prefunding) costs will produce lower annual costs later. Conversely, methods that produce lower initial costs will produce higher annual costs later relative to the other methods.

While the goal is to match recognition of retiree medical expense with the periods during which the benefit is earned, cost allocation methods differ because they focus on different financial measures in attempting to level the incidence of cost. Appropriate selection of a cost allocation method for funding purposes contributes to creating intergenerational equity between generations of taxpayers.

We believe it is most appropriate for the plan sponsor to adopt a theory of funding and consistently apply the best cost allocation method representing that theory. This valuation was prepared using the entry age normal cost method with normal cost determined on a level percent of pay basis. The entry age normal cost method is the only cost allocation method permitted for financial reporting purposes under GASB 75.

Factors Affecting the Selection of Assumptions

Special considerations apply to the selection of actuarial funding methods and assumptions for the District. The "demographic" actuarial assumptions used in this report were chosen, for the most part, to be the same as the actuarial assumptions used for the most recent actuarial valuations of the retirement plans covering District employees. Other assumptions, such as healthcare trend, age related healthcare claims, retiree participation rates and spouse/dependent coverage, were selected based on demonstrated plan experience and/or our best estimate of expected future experience. We



Funding OPEB Liabilities

(Concluded)

Factors Affecting the Selection of Assumptions (continued)

will continue to gather information and monitor these assumptions for future valuations, as more experience develops.

In selecting an appropriate discount rate for funding the plan, it is most common to use the expected long-term yield on investments likely to be deployed to pay the benefits. Other strategies could include using a long-term debt rate to calculate contribution levels even if the District hopes their long-term investment strategy will yield higher returns. In this way, required contributions may be reduced *if* those higher returns are realized, but only *as* they are actually realized. If higher returns are not realized to the degree expected, then the difference between the debt rate and the actual earnings rate acts as a safety margin so that larger contributions than planned are less likely to occur.



Addendum 2: MacLeod Watts Age Rating Methodology

Both accounting standards (e.g., GASB 75) and actuarial standards (e.g., ASOP 6) require that expected retiree claims, not just premiums paid, be reflected in most situations where an actuary is calculating retiree healthcare liabilities. Unfortunately, the actuary is often required to perform these calculations without any underlying claims information. In most situations, the information is not available, but even when available, the information may not be credible due to the size of the group being considered.

Actuaries have developed methodologies to approximate healthcare claims from the premiums being paid by the plan sponsor. Any methodology requires adopting certain assumptions and using general studies of healthcare costs as substitutes when there is a lack of credible claims information for the specific plan being reviewed.

Premiums paid by sponsors are often uniform for all employee and retiree ages and genders, with a drop in premiums for those participants who are Medicare-eligible. While the total premiums are expected to pay for the total claims for the insured group, on average, the premiums charged would not be sufficient to pay for the claims of older insureds and would be expected to exceed the expected claims of younger insureds. An age-rating methodology takes the typically uniform premiums paid by plan sponsors and spreads the total premium dollars to each age and gender intended to better approximate what the insurer might be expecting in actual claims costs at each age and gender.

The process of translating premiums into expected claims by age and gender generally follows the steps below.

1. *Obtain or Develop Relative Medical Claims Costs by Age, Gender, or other categories that are deemed significant.* For example, a claims cost curve might show that, if a 50 year old male has \$1 in claims, then on average a 50 year old female has claims of \$1.25, a 30 year male has claims of \$0.40, and an 8 year old female has claims of \$0.20. The claims cost curve provides such relative costs for each age, gender, or any other significant factor the curve might have been developed to reflect. Section M provides the source of information used to develop such a curve and shows sample relative claims costs developed for the plan under consideration.
2. *Obtain a census of participants, their chosen medical coverage, and the premium charged for their coverage.* An attempt is made to find the group of participants that the insurer considered in setting the premiums they charge for coverage. That group includes the participant and any covered spouses and children. When information about dependents is unavailable, assumptions must be made about spouse age and the number and age of children represented in the population. These assumptions are provided in Section M.
3. *Spread the total premium paid by the group to each covered participant or dependent based on expected claims.* The medical claims cost curve is used to spread the total premium dollars paid by the group to each participant reflecting their age, gender, or other relevant category. After this step, the actuary has a schedule of expected claims costs for each age and gender for the current premium year. It is these claims costs that are projected into the future by medical cost inflation assumptions when valuing expected future retiree claims.

The methodology described above is dependent on the data and methodologies used in whatever study might be used to develop claims cost curves for any given plan sponsor. These methodologies and assumptions can be found in the referenced paper cited as a source in the valuation report.



Addendum 3: MacLeod Watts Mortality Projection Methodology

Actuarial standards of practice (e.g., ASOP 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations, and ASOP 6, Measuring Retiree Group Benefits Obligations) indicate that the actuary should reflect the effect of mortality improvement (i.e., longer life expectancies in the future), both before and after the measurement date. The development of credible mortality improvement rates requires the analysis of large quantities of data over long periods of time. Because it would be extremely difficult for an individual actuary or firm to acquire and process such extensive amounts of data, actuaries typically rely on large studies published periodically by organizations such as the Society of Actuaries or Social Security Administration.

As noted in a recent actuarial study on mortality improvement, key principles in developing a credible mortality improvement model would include the following:

- (1) Short-term mortality improvement rates should be based on recent experience.
- (2) Long-term mortality improvement rates should be based on expert opinion.
- (3) Short-term mortality improvement rates should blend smoothly into the assumed long-term rates over an appropriate transition period.

The **MacLeod Watts Scale 2020** was developed from a blending of data and methodologies found in two published sources: (1) the Society of Actuaries Mortality Improvement Scale MP-2019 Report, published in October 2019 and (2) the demographic assumptions used in the 2019 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, published April 2019.

MacLeod Watts Scale 2020 is a two-dimensional mortality improvement scale reflecting both age and year of mortality improvement. The underlying base scale is Scale MP-2019 which has two segments – (1) historical improvement rates for the period 1951-2015 and (2) an estimate of future mortality improvement for years 2016-2018 using the Scale MP-2019 methodology but utilizing the assumptions obtained from Scale MP-2015. The MacLeod Watts scale then transitions from the 2018 improvement rate to the Social Security Administration (SSA) Intermediate Scale linearly over the 10-year period 2019-2028. After this transition period, the MacLeod Watts Scale uses the constant mortality improvement rate from the SSA Intermediate Scale from 2028-2042. The SSA's Intermediate Scale has a final step down in 2043 which is reflected in the MacLeod Watts scale for years 2043 and thereafter. Over the ages 95 to 115, the SSA improvement rate is graded to zero.

Scale MP-2019 can be found at the SOA website and the projection scales used in the 2019 Social Security Administrations Trustees Report at the Social Security Administration website.



Glossary

Actuarial Accrued Liability (AAL) – Total dollars required to fund all plan benefits attributable to service rendered as of the valuation date for current plan members and vested prior plan members; see “Actuarial Present Value”.

Actuarial Funding Method – A procedure which calculates the actuarial present value of plan benefits and expenses, and allocates these expenses to time periods, typically as a normal cost and an actuarial accrued liability.

Actuarial Present Value Projected Benefits (APVPB) – The amount presently required to fund all projected plan benefits in the future, it is determined by discounting the future payments by an appropriate interest rate and the probability of nonpayment.

Actuarial Value of Assets – The actuarial value of assets is the value used by the actuary to offset the AAL for valuation purposes. The actuarial value of assets may be the market value of assets or may be based on a methodology designed to smooth out short-term fluctuations in market values.

Actuarially Determined Contribution (ADC) – A contribution level determined by an actuary that is sufficient, assuming all assumptions are realized, to (1) fully fund new employee’s expected benefits by their expected retirement date(s), (2) pay off over a sufficiently short period any unfunded liabilities current as of the date funding commences, and (3) adequately fund the trust so that the trust can meet benefit payment obligations.

CalPERS – Many state governments maintain a public employee retirement system; CalPERS is the California program, covering all eligible state government employees as well as other employees of other governments within California who have elected to join the system.

Defined Benefit (DB) – A pension or OPEB plan which defines the monthly income or other benefit which the plan member receives at or after separation from employment.

Defined Contribution (DC) – A pension or OPEB plan which establishes an individual account for each member and specifies how contributions to each active member’s account are determined and the terms of distribution of the account after separation from employment.

Discount Rate – The rate of return that could be earned on an investment in the financial markets; typically, the discount rate is based on the expected long-term yield of investments used to finance the benefits. The discount rate is used to adjust the dollar value of future projected benefits into a present value equivalent as of the valuation date.

Entry Age Normal Cost (EANC) – An actuarial funding method where, for each individual, the actuarial present value of benefits is levelly spread over the individual’s projected earnings or service from entry age to the last age at which benefits can be paid.

Excise Tax – The Affordable Care Act created a 40% excise tax on the value of “employer sponsored coverage” that exceeds certain thresholds. The tax was repealed in December 2019.

Explicit Subsidy – The projected dollar value of future retiree healthcare costs expected to be paid directly by the Employer, e.g., the Employer’s payment of all or a portion of the monthly retiree premium billed by the insurer for the retiree’s coverage.



Glossary

(Continued)

Funding Policy Contribution (FPC)– The contributions determined in accordance with the entity’s adopted funding policy. The FPC may range from “pay-go” (i.e. only paying benefits as they come due), to prefunding all projected liabilities expected for current and former employees. An entity’s FPC may be: (1) less than the Actuarially Determined Contribution (ADC) indicating that the entity has chosen not to prefund part of the liabilities reflected in the ADC; (2) more than the ADC indicating that the entity wants to prefund benefits faster than a typical ADC; or (3) based on contributions equal to 100% of an ADC, indicating that the entity desires to prefund over the period indicated by the ADC.

Government Accounting Standards Board (GASB) – A private, not-for-profit organization which develops generally accepted accounting principles (GAAP) for U.S. state and local governments; like FASB, it is part of the Financial Accounting Foundation (FAF), which funds each organization and selects the members of each board

Health Care Trend – The assumed rate(s) of increase in future dollar values of premiums or healthcare claims, attributable to increases in the cost of healthcare; contributing factors include medical inflation, frequency or extent of utilization of services and technological developments.

Implicit Subsidy – The projected difference between future retiree claims and the premiums to be charged for retiree coverage; this difference results when the claims experience of active and retired employees are pooled together and a ‘blended’ group premium rate is charged for both actives and retirees; a portion of the active employee premiums subsidizes the retiree premiums.

Non-Industrial Disability (NID) – Unless specifically contracted by the individual Agency, PAM employees are assumed to be subject to only non-industrial disabilities.

Normal Cost – Total dollar value of benefits expected to be earned by plan members in the current year, as assigned by the chosen funding method; also called current service cost.

Other Post-Employment Benefits (OPEB) – Post-employment benefits other than pension benefits, most commonly healthcare benefits but also including life insurance if provided separately from a pension plan.

Pay-As-You-Go (PAYGO) – Contributions to the plan are made at about the same time and in about the same amount as benefit payments and expenses coming due.

PEMHCA – The Public Employees’ Medical and Hospital Care Act, established by the California legislature in 1961, provides community-rated medical benefits to participating public employers. Among its extensive regulations are the requirements that a contracting Agency contribute toward medical insurance premiums for retired annuitants and that a contracting Agency file a resolution, adopted by its governing body, with the CalPERS Board establishing any new contribution.

Plan Assets – The value of cash and investments considered as ‘belonging’ to the plan and permitted to be used to offset the AAL for valuation purposes. To be considered a plan asset, (a) the assets should be segregated and restricted in a trust or similar arrangement, (b) employer contributions to the trust should be irrevocable, (c) the assets should be dedicated to providing benefits to retirees and their beneficiaries, and (d) that the assets should be legally protected from creditors of the employer and/or plan administrator. See also “Actuarial Value of Assets”.



Glossary
(Concluded)

Public Agency Miscellaneous (PAM) – Non-safety public employees.

Select and Ultimate – Actuarial assumptions which contemplate rates which differ by year initially (the select period) and then stabilize at a constant long-term rate (the ultimate rate).

Unfunded Actuarial Accrued Liability (UAAL) – The excess of the actuarial accrued liability over the actuarial value of plan assets.

Vesting – As defined by the plan, requirements which when met make a plan benefit nonforfeitable on separation of service before retirement eligibility.



Sacramento-Yolo Mosquito and Vector Control District

August 18, 2020 Board Meeting

3. Reports to the Board

a. Manager's Report

b. Reports from District Departments

- **Lab/Surveillance (Marcia Reed)**
- **Ecological Management (Marty Scholl)**
- **Biological Control (Tony Hedley)**
- **Larval and Adult Control (Steve Ramos)**
- **Public Outreach (Luz Maria Robles)**

a. Manager's Report

The District's West Nile season is picking up but still one of the slowest seasons we've experienced. We continue to follow the District's Mosquito Borne Disease Management Plan with enhanced surveillance and control efforts in response to positive dead birds or positive mosquito collections.

The AMCA has submitted a grant proposal to the CDC for enhanced best management practices regarding *Culex* species and to provide direction in emergency and natural disaster response. We hope to hear back from them in October.

The MVCAC supported the Special Districts Provide Essential Services Act (Senate Bill 4308 and House Bill 7073). These pieces of legislation would create the ability for Special Districts to be eligible for Federal assistance.

b. Reports from District Departments

- **Lab/Surveillance (Marcia Reed)**
- **Ecological Management (Marty Scholl)**
- **Biological Control (Tony Hedley)**
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LABORATORY

Monthly Report for August 2020 Board Meeting

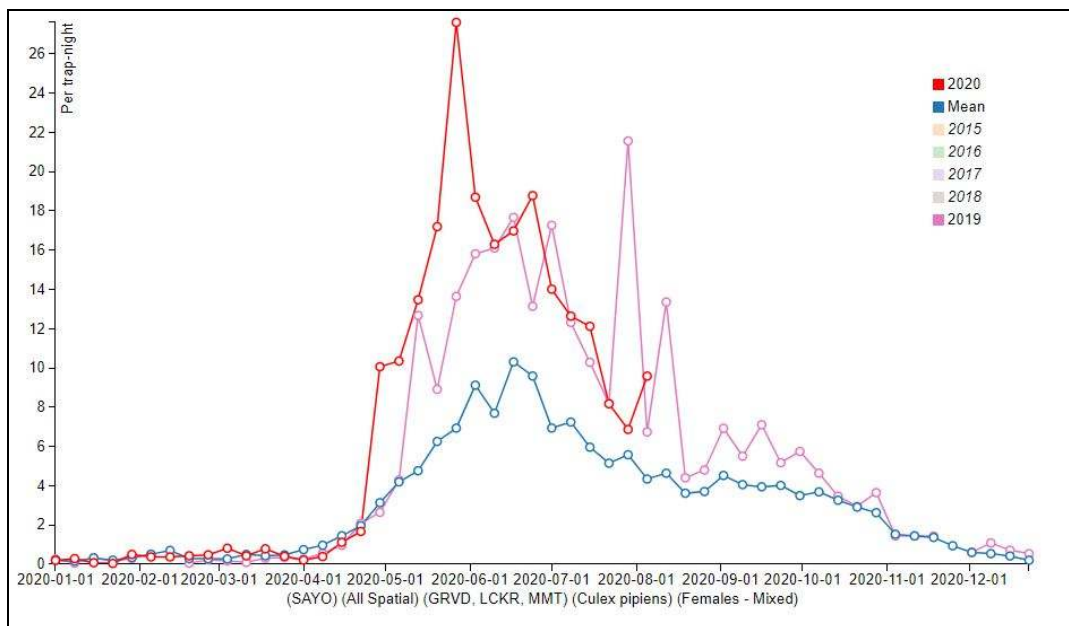
Insectary:

Colonies maintained: *Culex tarsalis* Kern National Wildlife (susceptible)
Culex tarsalis Conaway Ranch – wild (resistant)
Culex quinquefasciatus Cq1 (susceptible)
Culex pipiens Woodland (resistant)
Culex pipiens f. *molestus* - wild - Sacramento County
Aedes sierrensis wild - Marin - Sonoma County (in egg form)

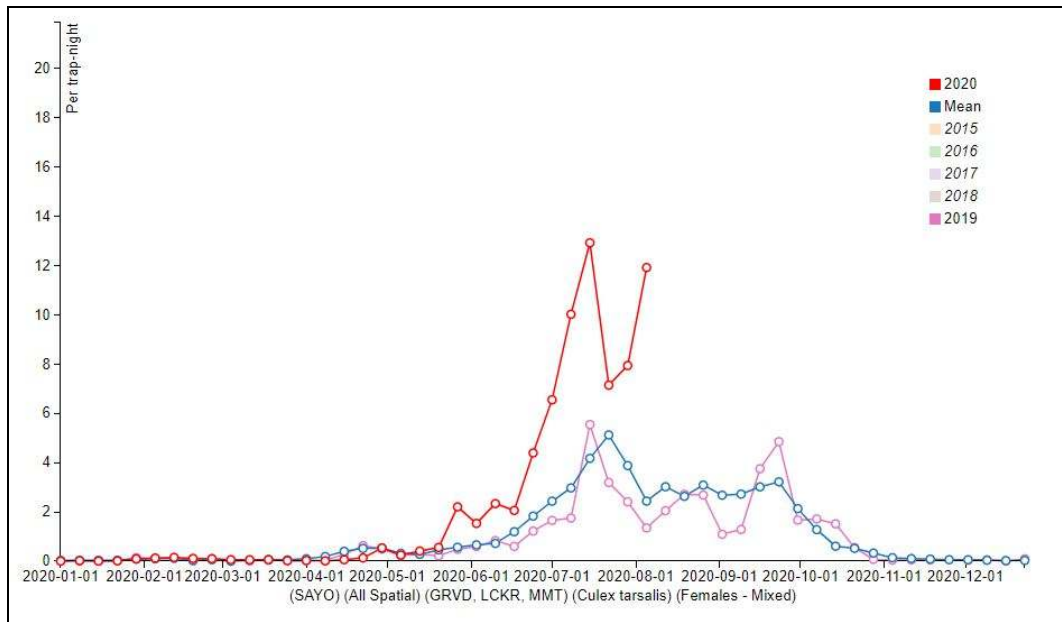
Surveillance:

Weekly collections – The Locker CO₂ Traps (LCKRs) and Gravid traps (GTs) graphs this month show the same pattern we saw last month, as can be seen in the graphs below. We saw an early elevation in abundance numbers for *Culex pipiens* above the 5 year mean, but the abundance has declined over the past month. *Culex tarsalis* abundance is above the 5 year mean. A contributing factor to the *Cx. tarsalis* high abundance is the switch from the Mosquito Magnet traps (MMT) to our District Locker traps (LCKR). Both the MMT and LCKR capture host seeking female mosquitoes, but our improved LCKR trap is much more efficient with our latest design improvements and we continue to see the increased performance in our data.

Culex pipiens in weekly abundance traps (LCKR, GT):

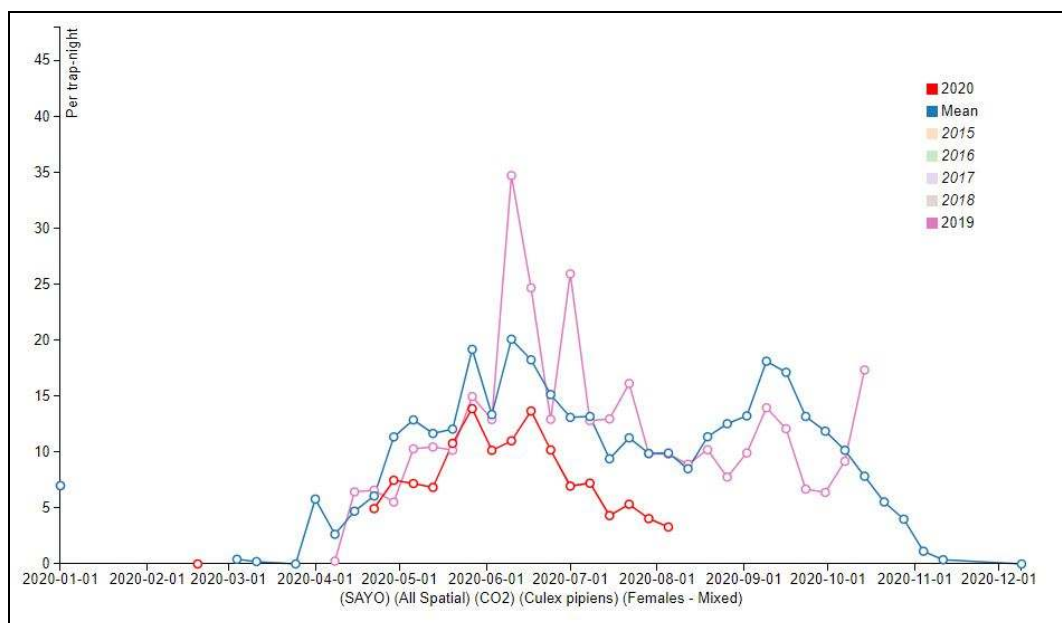


Culex tarsalis in weekly abundance traps (LCKR, GT):

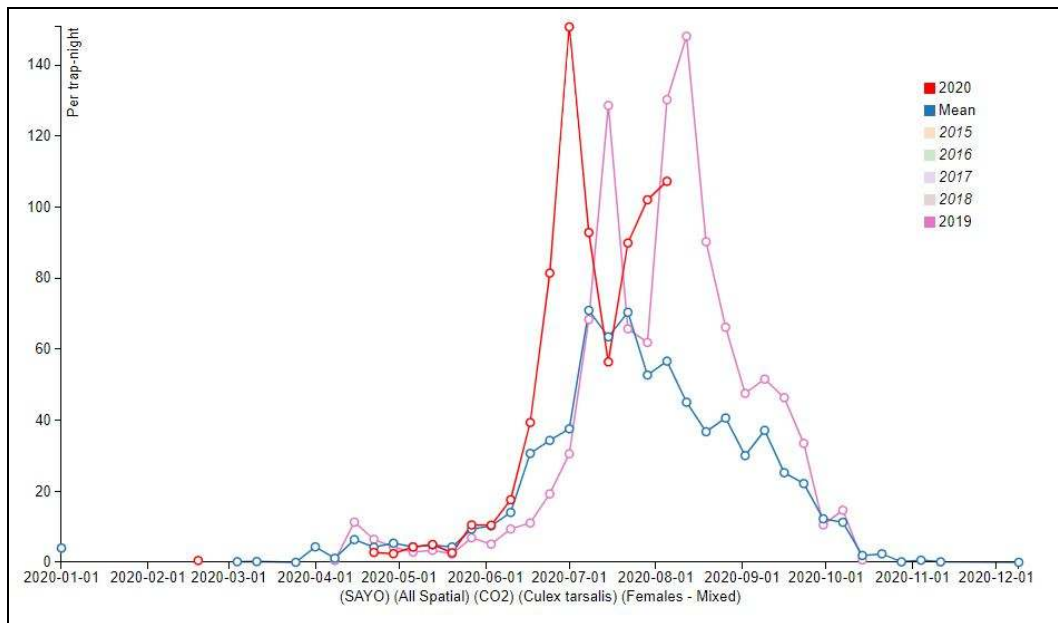


Encephalitis virus surveillance (EVS) – Mosquitoes – We have currently tested 3,955 mosquito pools (samples). Of these, 52 have been positive for West Nile Virus. 18 of these positive pools are from Yolo County and the remaining 34 positive pools are from Sacramento County.

Culex pipiens in CO₂ EVS traps:



Culex tarsalis in CO₂ EVS traps:



Encephalitis virus surveillance (EVS) – Sentinel Chickens – We have been sampling the chickens every other week and have detected no positive chickens at this time. The flock locations are Dunnigan, Knights Landing, Isleton, Rancho Murieta, and Gibson Ranch.

Encephalitis virus surveillance (EVS) – Dead Birds – We have picked up and tested 253 dead birds of which 50 have tested positive for West Nile Virus. 47 of the dead birds were from Sacramento County and 3 were from Yolo County. We respond to the finding of positive dead birds by setting EVS traps near their reported locations. In many cases, positive mosquito pools are then found and adult mosquito control measures are initiated.

Invasive *Aedes* spp. Surveillance – We have still not yet detected any *Aedes aegypti* activity in Citrus Heights this year in our permanent sites. We have begun setting BG Sentinel traps in other areas of the District, but have not detected any invasive *Aedes* mosquitoes in these traps.

Tick and Lyme disease surveillance – We have completed the spring portion of our tick surveillance and testing program. We will resume tick collecting in October 2020.

BG Counter Traps – We have deployed the rice habitat BG Counter traps in Natomas and the Yolo County agricultural rice growing areas. These traps are used by control operations to determine whether adulticide treatments are warranted. In addition, we have deployed several counter traps in the Yolo County and Sacramento urban/suburban areas. We have 15 traps currently deployed.

Mosquito Resistance Testing – We are continuing our larvicide benchtop cup bioassays and in addition are starting to run adult bottle bioassays this month. We will evaluate various populations for resistance.

Disease Response Surveillance – In the month of July, we were not notified of any imported mosquito-borne disease cases.

District Studies –

LVL (Low Volume Larvicide) studies – We will be conducting evaluations of this application method utilizing both Vectobac WDG and Altosid Liquid Larvicide this month.

Adulticide Product Trials – We have not yet conducted any of these trials, but are planning on doing so before the end of the season.

Sugar Bait Project – We have continued to deploy sugar baits in areas where we are seeing West Nile virus activity and have now had positive detections in 28 sugar bait samples. We have tested 935 sugar bait samples so far this season.

Sumilarv Evaluation – We are assisting control operations in the evaluation of this product in swimming pools. This study involves both in ground concrete pools and above ground vinyl pools. This study is in progress.

***Aedes aegypti* traps** – Currently, we utilize BG Sentinel traps for monitoring our Citrus Heights invasive *Aedes* populations, we have not yet had any detections of *Aedes aegypti* adult mosquitoes in our traps. Once we have detections we will be evaluating other types of traps for use in our invasive surveillance program.

Collaborations –

Catch Basin Residue and Resistance study – We have taken and shipped the first of three sample collection kits to Dr. Jay Gan's lab at UC Riverside and are planning on taking our second samples from catch basins in the District this month. The last sampling date will be in September for this study. We collected water samples from 12 catch basins total. The areas sampled were Davis, Citrus Heights, the Pocket and downtown Sacramento.

Natular (spinosad) applied via LVL – Under an experimental use permit we conducted a trial with Clarke Mosquito Control utilizing the LVL application method to apply a spinosad larvicide product. The study results are being summarized by Clarke scientists.

Additional Projects – We will be working with two recipients of Pac-Vec Center of Excellence training grants. The first is Dr. Tara Thiemann from UOP (the University of the Pacific in Stockton). She is working on resistance in *Culex tarsalis* mosquitoes. Dr. Thiemann has sent standard material and protocols for us to begin running bottle bioassays for this study. The second is Dr. Monika Guila-Nuss from UNR (the University of Nevada at Reno). This collaboration is regarding *Ixodes pacificus* ticks and will begin this fall/winter when our tick surveillance program resumes.

California Arbovirus Surveillance Bulletin #17 Week 32: Friday, August 7, 2020

2019 & 2020 YTD West Nile Virus Comparisons		
	2019	2020
Total # Dead Bird Reports	3,547	3,255
# Positive Counties	23	27
# Human Cases	10	10
# Positive Dead Birds / # Tested	58 / 1,085	81 / 866
# Positive Mosquito Pools / # Tested	1,647 / 25,270	675 / 21,775
# Seroconversions / # Tested	10 / 5,095	21 / 3,618

YTD WNV Activity by Element and County, 2020					
County	Humans*	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			1		
Amador		1			
Butte				11	4
Fresno			4	102	
Glenn				2	1
Imperial				3	
Kern				10	
Kings				22	
Lake				3	
Los Angeles	1		12	92	2
Madera	1			13	
Merced			2	24	14
Napa			1		
Orange			4	34	
Placer				15	
Riverside			1	40	
Sacramento			42	25	
San Diego				2	
San Joaquin			1	53	
Santa Clara			5	8	
Shasta				6	
Solano			1		
Stanislaus	8	1	4	165	
Sutter				8	
Tulare			1	23	
Yolo			2	13	
Yuba				1	
Totals	10	2	81	675	21

ECOLOGICAL MANAGEMENT DEPARTMENT Monthly Report for the August 2020 Board Meeting

Storm Water / Drainages Program

Staff worked with the City of Woodland to remove beaver dams and material out of the Waste Water drainage ditch located north of Hwy 5. The material was used to fill scour and beaver holes in the ditch that have been causing flooding of the dry fields when the beaver dams get built too high.

Staff has continued working on reducing mosquito habitats by removing dead and new vegetation in a series of agricultural return ditches. A series of drainage ditch cleaning projects have been scheduled for the remainder of the summer and fall season, as well as a series of winter brush projects.



Wetland Program / Rice Program

Staff has begun the initial Fall Flooding planning and is already getting flood start dates for many properties. Due to product active ingredient rotational requirements, some properties may have higher larvicide treatment costs associated with their early flood-ups and have been notified as appropriate. Staff will continue to be in contact with each property as flooding plans, water availability and rice draining continues to change.

Staff will participate in the annual Lower Yolo Bypass Flood Up Meeting in early August to help schedule water delivery and flood start dates for seven of the duck clubs in the Lower Bypass.

Planning Program

The Department recently received numerous planning projects for review. Responses will be made as appropriate.

City of Elk Grove Sports Complex, Supplemental Environmental Impact Review(SEIR): Staff investigated the newly proposed drainage at buildout and looked at the off-site receiving pond and

outfall to Deer Creek with the current property owner. A request for routine maintenance letter was submitted to the City to be included into the Supplemental Environmental Impact report.

O'Donnel Estates, Carmichael, CA: An applicant has submitted plans to Sacramento County Planning Dept. to subdivide a single parcel into eight separate buildable parcels. A neighboring parcel owner called with concerns regarding the combination open ditch and culvert drainage system that goes past his property that will be utilized by this new mini subdivision. Staff reviewed the site with the property owner, and consulted with Sacramento County Dept. of Water Resources, Drainages Division and determined that no adverse impact would be caused by this project.

OE3 Training Center, US Army Corps of Engineers (USACE): USACE posted a permit application by OE3 to construct a new Training Center and Open Space Preservation Project South of Rancho Murietta. Staff will review the wetlands portion of this project and submit comments as appropriate.

Rooney-2 Vernal Pool Restoration: USACE is soliciting comments on the proposed expansion of the Rooney vernal pool mitigation site located on the corner of Grant Line and Sunrise Roads. The District currently does not need to treat the vernal pools, and does not anticipate any additional mosquito control on the new expansion.

Yolo Bypass Salmonid Habitat Restoration and Fish Passage: USACE issued a Notice of Permit Application for the installation of three operable gates located in the Freemont Weir near the eastern edge. The duration of flooding and timing is not discussed in this permit, but will be investigated. Comments will be submitted as appropriate.

Yarbrough Project, West Sacramento: USACE issued a notice of Permit Application for the construction of ponds and lakes for the Yarbrough project located South of West Sacramento. The proposed lakes and ponds will serve as the main drainage and water treatment for a future development that was approved back in 2008. Staff will review the Application and will submit comments as appropriate.

Rio del Oro Phase 1, Elliott Homes: ECORP Consulting reached out for assistance with developing a Mosquito Control Plan to be submitted to the City of Rancho Cordova for the Rio del Oro Project located East of Rancho Cordova. An appropriate plan was drafted requiring routine maintenance by the Developer and the City of Rancho Cordova.

UAS Program

Staff continues to coordinate UAS treatments when Control Operations Supervisors request treatments that cannot be handled by conventional treatment options.

Staff was asked to assist Ducks Unlimited in early August with some imaging of the new agricultural crossings, pump station and drainages on a project located in the Yolo Bypass within the Vic Fazio Wildlife Area. These new drainage improvements will benefit rice drainage, and faster fall flooding.

BIOLOGICAL CONTROL

Monthly Report for August 2020 Board Meeting

In the month of July the Fisheries Department's main goal is to stock the Districts rice fields with the primary focus being rice fields closest to dense populations of people. The rice fields with more larval data and close to dense populations will get stocked first then we work our way to more isolated areas. The daily fish stocking process begins with preparing maps using the guidelines stated previously then transporting mosquitofish to designated fields. After completing this process the fisheries crew returns to the Bond road facility to begin harvesting more mosquitofish for the next day's fish stocking. This process is repeated every day for the six week window of rice field stocking. The Fisheries Department continues with many projects including monitoring dissolved oxygen levels, crayfish trapping, testing ideal stocking rates and investigating the use of mosquitofish pheromones to repel mosquito egg laying. Daily activities such as tank cleaning, water quality monitoring, setting out aerators and pumps were also performed to maintain the high quality of our fish population.

Log of Treatment Applied for July

<u>Material</u>	<u>AMT</u>	<u>Area Treated</u>	<u>Rate</u>	<u>Treatments</u>
Mosquitofish	2,005.84 lbs.	11,837.91 Acres	.17 lbs./ac	639

Log of Treatment Applied for the year 2020

<u>Material</u>	<u>AMT</u>	<u>Area Treated</u>	<u>Rate</u>	<u>Treatments</u>
Mosquitofish	2,537.38 lbs.	14,504.77 Acres	.17lbs./ac	3,510

Fisheries Budget

<u>Total</u>	<u>Spent</u>	<u>Remaining</u>	<u>% Spent</u>
27,000.00	3,521.28	23,478.72	13%

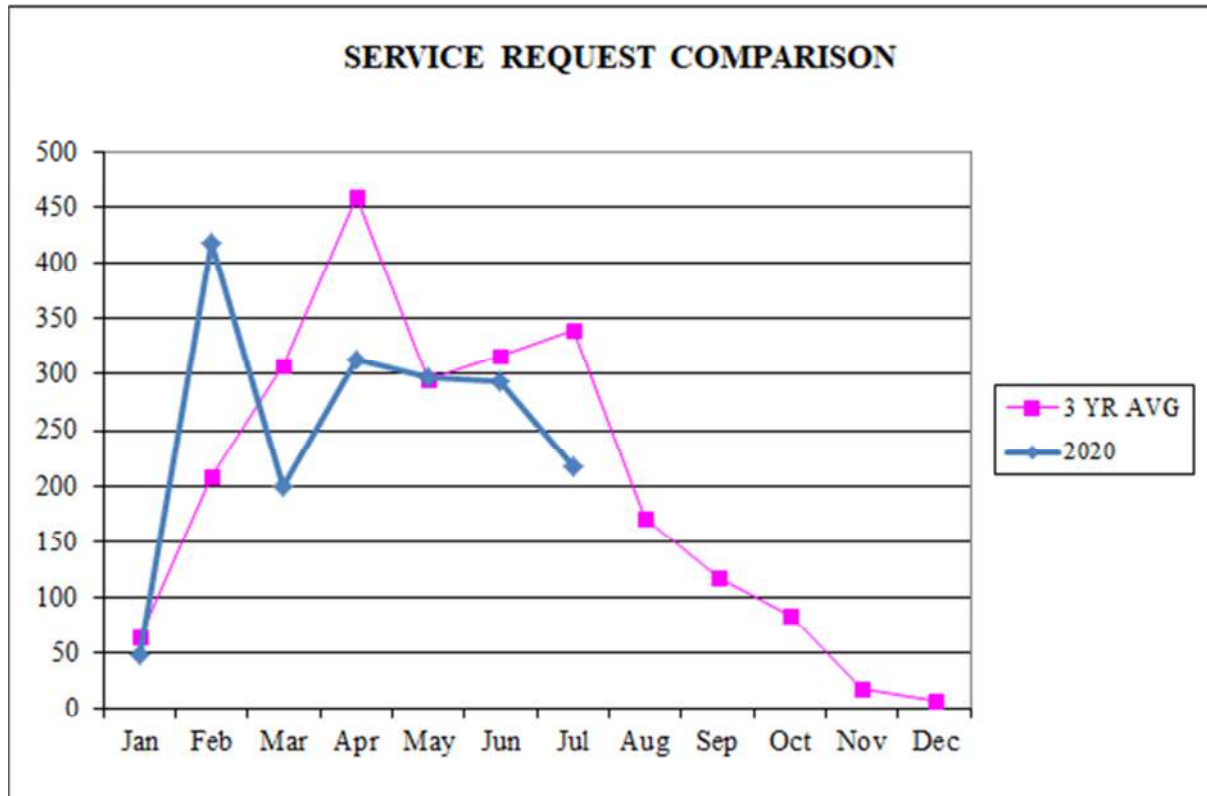


Examples of mosquitofish being stocked into rice fields. Desired amounts of fish are brought to the assigned field and distributed evenly throughout the number of rice paddies.

CONTROL OPERATIONS

Monthly Report for August 2020 Board Meeting

July saw a ramp up in the number of sources treated which follows the trend for this time of year. Field crews are busy as generation time from egg to adult is fast tracked during this time of the year due to the warm weather. Crews are also responding to WNV positive mosquito traps in both counties. Aerial larviciding operations over rice have converted to granular applications now and will continue for the remainder of the season. Aerial adulticiding over rice growing areas has picked up from June and with herbicide treatments in the rice done for the season the District is alternating treatments between our Pyrethrin and Naled products. Trails have been ongoing through the season looking at a variety of active ingredients, source types and application methodologies.



Larvicide Applications thru July 31st				
	<u>2020</u>		<u>2019</u>	
<u>Locations/Roles</u>	<u>Treatments</u>	<u>Acres</u>	<u>Treatments</u>	<u>Acres</u>
Sacramento County	5920	5047	4,138	7,731
Sac County Aerial	18 Order, 302 Sources	63,720	11Orders, 174 Sources	11,324
Sac County Drone Treatments	8 orders	305.78		
Yolo County	1372	3,012	1438	4,407
Yolo County Aerial	40 Order, 643 Sources	21,187	14 Orders 160 Sources	11,792
Yolo County Drone Treatments	7 Order	440		
CB Treated	98,664	--	108,693	--
CB Inspected -not treated	107,926	--	98,516	--

Aerial Adulticide Summary thru July 31st				
	<u>2020</u>		<u>2019</u>	
<u>County</u>	<u># Applications</u>	<u>Acres</u>	<u># Applications</u>	<u>Acres</u>
Sacramento Ag	7	50,400	6	40,640
Sacramento Urban	0	0	0	0
Yolo Ag	25	205,564	20	175,769
Yolo Urban	0	0	0	0

VDCI Summary through July 31st, 2020

compared to: 2019

Contract Acres (our portion) =	530,000	530,000
Acres used =	255,964	216,409
Acres remaining =	(274,036)	(313,591)
% Acres used =	48%	41%
% Acres remaining =	52%	59 %

San Joaquin County MVCD has used 43,856 acres of their 190,000 acre contract commitment.
Placer MVCD has used 26,628 acres of their 100,000 acre commitment.
Turlock MAD has used 66,356 acres of their 180,000 acre commitment.

PUBLIC INFORMATION AND EDUCATION

Monthly Report for August 2020 Board Meeting

Media Coverage:

As a result of the first activity detected in Yolo County we had some media coverage including a variety of print articles in the Sacramento Bee, Davis Enterprise, and Daily Democrat. These articles were also posted on our social media to get further dissemination.

Social Media

Our social media efforts continue and to date we have 11,634 followers on Facebook. Content is focused on signing up for email spray notification, West Nile virus (WNV) activity, reporting dead birds, and promotion of District services. We have continued to launch some Facebook ads geared towards increasing our number of fans and other ads encouraging residents to sign up for spray notifications due to the ongoing mosquito control efforts and the detection of West Nile virus activity. In areas where much of the WNV is concentrated, we have also done targeted posts geared to specific zip codes.

Repellent Distribution

Repellent distribution continues as field technicians distribute repellent and other District materials to all service requests. Recently, mosquito repellent wipes were dropped off at the City of Davis for their outdoor dining establishments and other city sponsored activities. Repellent wipes were also picked up by Harm Reduction Services to be disseminated to homeless residents that live along the river.

Advertising

The advertising campaign continues to be in full swing and our Fight the Bite messages are airing consistently across radio and television stations. The media schedule is in flights so that our messages are being rotated across stations and this ensures a constant presence at all times throughout the media market. In addition to these commercials we also have billboards and bus ads. The invasive mosquito commercial called "Space Invaders" will debut later in the season and in the meantime we are promoting our commercials that focus on using repellent, draining water, and reporting mosquito breeding sources. As part of the advertising campaign we recorded three new Spanish radio spots that will begin to be rotated soon.

Presentations:

A presentation via Zoom to the Walnut Grove Rotary Club is scheduled for August 24th.

Sacramento-Yolo Mosquito and Vector Control District

August 18, 2020 Board Meeting

4. Status of West Nile Virus Activity and District Response

Staff Report:

The District continues to follow the Mosquito and Mosquito Borne Disease Management Plan which highlights the steps that personnel take in responding to high abundance or infections in the mosquito population. When a dead bird or mosquito is found to have been infected with West Nile virus, lab personnel enhance surveillance efforts around the location to determine the potential spread of the detection. Control operation personnel then conduct a radius of both larval and adult sources to help reduce the number of mosquitoes in the area and to reduce the risk of transmission to the population. The District then continues to monitor the area to determine the geographic extent of the infection and to see if the number of infections decreases from the effort of the control personnel. If infections persist in the area, then more aggressive measures are considered. In addition to the traditional surveillance tools we've used in previous years, the District is in the process of using sugar baits to enhance our program.

As was the case last year, the District has experienced a mild WNV year compared to previous years with limited ground based adulticide treatments needed in urban/suburban areas. To date, no aerial adulticiding has been required over congested areas to quickly interrupt the transmission cycle of WNV. The District has maintained its aerial adulticide program over rice growing and agricultural areas to reduce populations and to prevent migration from these areas to the population centers of the District.

Statewide, WNV activity has been variable compared to last year. There are approximately 100 less mosquito pool positives this year compared to last year with the foci of activity in 2020 being in Stanislaus (165), Fresno (102) and Los Angeles (92) counties accounting for just over 50% of the 675 positive mosquito collections to date. A number of counties have reported between 20 to 40 positive pools, with Sacramento being one of them. In contrast to the mosquitoes, 81 dead birds have tested positive so far this year which is an increase from the 58 positive birds in 2019. This year 21 chickens have seroconverted, twice as many as last year with approximately 1,500 fewer tests reported.

2018 & 2019 YTD West Nile Virus Comparisons-Thru 08/7/2019		
	2019	2020
Total # Dead Bird Reports	3,547	3,255
# Positive Counties	23	27
# Human Cases	10	10
# Positive Dead Birds / # Tested	58/1085	81/866
# Positive Mosquito Pools / # Tested	1,647/25,270	675/21,775
# Seroconversions / # Tested	10/5,095	21/3,618

The charts below highlight the amount of West Nile activity that the District has recorded year to date for 2019 and annual totals compared to the previous ten years.

District Year to Date Totals

		2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Dead Birds	Positive	50	12	175	34	390	73	231	144	367	33	81	1
	Tested	253	251	441	291	676	304	505	400	877	190	120	36
Mosquito Pools	Positive	52	18	272	62	505	169	445	385	399	83	139	14
	Tested	3955	3873	4610	4135	4914	3587	4389	4069	4155	3330	3742	2926
Human Cases		0	0	1	0	1	0	1	3	2	0	2	0

District Annual Totals

		2020*	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Dead Birds	Positive	50	51	282	100	490	164	364	296	562	145	136	20
	Tested	253	385	668	424	826	474	665	645	1070	412	185	113
Mosquito Pools	Positive	52	133	390	240	714	337	708	630	641	388	215	52
	Tested	3955	6548	6951	7103	8245	7270	7554	6760	6796	6679	6244	4363
Human Cases		0	5	26	12	41	15	25	19	43	4	13	2

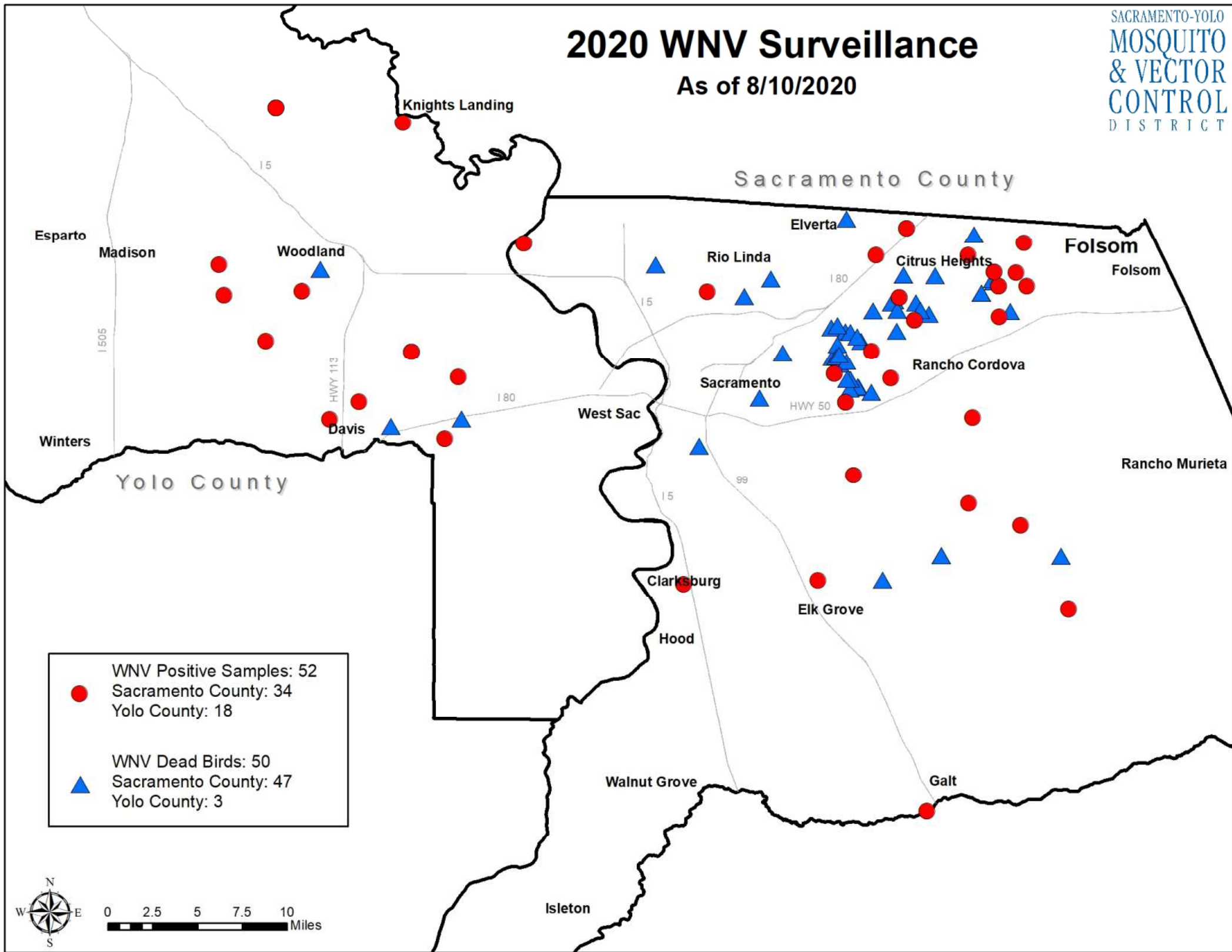
**Through August 10*

Recommendation:
Information Only

2020 WNV Surveillance

As of 8/10/2020

SACRAMENTO-YOLO
MOSQUITO
& VECTOR
CONTROL
DISTRICT



2020 Aerial Adulticide Treatments



As of 8/10/2020

SACRAMENTO-YOLO
MOSQUITO
& VECTOR
CONTROL
DISTRICT

Yolo County

Acres Treated: 334,419

Sacramento County

 Treatment Areas
 District Rice



0 1.25 2.5 5 7.5 10 Miles

Dunnigan

14

Knights Landing

Esparto

Madison

Woodland

9

Elverta

Rio Linda

Citrus Heights

4

7

2

Rancho Cordova

Davis

Sacramento

West Sacramento

Winters

2

7

Clarksburg

Elk Grove

Hood

Courtland

Sacramento-Yolo Mosquito and Vector Control District

August 18, 2020 Board Meeting

5. **Closed Session- Provide Instruction to Designated Labor Representatives (Gov. Code s. 54957.6-Labor Negotiations)**
Agency Designated Representatives : [Gary Goodman, Janna McLeod, Samer Elkashef, Chris Voight]
Employee Organization: [Operating Engineers Local Union #3]

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Sacramento-Yolo Mosquito and Vector Control District

August 18, 2020 Board Meeting

6. Board Review and Approval of Side Letter to the MOU between District and Operating Engineers Local Union #3

Staff Report:

The District has been meeting with the Operating Engineers Local Union #3 on the reopener clauses of the current MOU. We have reached tentative agreement on the attached Side Letter.

Recommendation:

Approve the Side Letter to the MOU between the District and Operating Engineers Local Union #3



Side Letter Agreement Compensation August 18, 2020



The parties to this agreement are Operating Engineers Local 3 (OE3), and the Sacramento Yolo Mosquito and Vector Control District (District).

This agreement results from contract negotiations using the Interest Based Process. The elements of this agreement were discussed and agreed to in principle primarily during the August 11th and previous sessions and relate to the reopeners of the existing MOU between the District and OE3.

1. **Employees will receive 4 additional paid days off to be taken between the current Christmas Holiday and the New Year Holiday.**
2. **The District's contribution for Health Care will increase by \$100 per month effective July 1, 2020.** Further review of the District's health care program will continue jointly by the parties in the coming months.
3. **Overtime will be administered according to attachment 1 of this side letter.**
4. **The Ecological Management Technician Job Description will be reviewed after the 2020 fall flooding season is complete.**
5. **The District and OE3 will meet and confer in January 2021 to discuss any salary adjustments. Between now and January 2021 the District and OE3 will meet as needed to discuss the assessor's office reports and the ever-changing financial landscape.**
6. **The District will revise its dress and grooming policy standards in the safety manual as outlined in attachment 2 of this side letter.**

Signatories:

Date

Gary Goodman, District Manager _____

Felix Huerta, OE3 Business Agent _____

Attachment 1

Overtime Addendum

Overtime shall be performed by volunteers whenever possible followed by a mandatory list. The volunteer list will be initially setup on a seniority basis. The volunteers will be selected beginning at the top of the list and then once a volunteer participates in overtime their name will go to the bottom of the volunteer and mandatory lists.

The mandatory list will also be setup on a seniority basis. If an employee is mandated to work due to a lack of volunteers, the least senior employee(s) will be selected for the overtime. Once a person works overtime through the mandatory process their name goes to the bottom of the list and they cannot be mandatoried again until the whole list has been cycled through. Both the volunteer and mandatory lists reset on an annual basis. The District reserves the right to assign a specific employee based on operational needs. Extension of regular work hours such as, but not limited to, 9 hour days, public events, holiday work, or weekend work shall be assigned by the supervisor based on District workload and needs.

ULV Operations

For nighttime ULV overtime, the Elk Grove and Woodland offices will operate independently of one another. For Elk Grove, ULV overtime shall be performed in a manner consistent to what is described above with volunteers selected first for overtime followed by a mandatory list.

Volunteers will be selected from the top of the list and then once they have participated in overtime their name will go to the bottom of the volunteer and mandatory lists. Field technicians will be given priority to other job classes in the selection of volunteers. Once a person works ULV overtime through the mandatory list their name will go to the bottom of the mandatory list. For Woodland there shall be two mandatory lists, A and B, which alternate week to week. The list shall be setup in a reverse seniority manner with the least senior person being the top of list A, the second least senior the top of list B and so on. Once a person works overtime through the mandatory process their name goes to the bottom of the list and they cannot be mandatoried again until the whole list has been cycled through.

A minimum of three hours (3) hours shall be earned to anyone that works nighttime ULV overtime. Should a ULV operation run less than three hours, the District reserves the right to assign duties to fulfill the three hour minimum. If an employee performs night time ULV overtime they cannot be called upon to work until 5am the next day. Similarly, if an employee works a shift that starts before 5am, said employee cannot perform ULV work that night. The District reserves the right to assign a specific employee based on operational needs.

ATTACHMENT 2

OE3 AND DISTRICT SHOE SIDE LETTER

INTRODUCTION

THE PURPOSE OF THIS SIDE LETTER IS TO LIMIT FOOT INJURIES THAT CAN OCCUR WHILE PERFORMING DISTRICT WORK. THE FOLLOWING IS TO SERVE AS A GUIDELINE ON THE TYPE OF FOOTWEAR THAT IS PERMITTED DURING THE COURSE OF WORK. THIS WILL BE ADDED TO THE DISTRICT'S SAFETY MANUAL.

SHOE GUIDELINES

1. SHOES MUST BE WORN AT ALL TIMES.
2. SHOES CAN BE OPEN TOED BUT MUST COVER MOST OF THE FOOT TO PROVIDE A LEVEL OF PROTECTION AT ALL TIMES.
3. SHOES MUST HAVE NO HIGHER THAN A TWO AND ONE HALF INCH HEEL.
4. NO BACKLESS SHOES CAN BE WORN AT ANY TIME.
5. NO SANDALS, FLIP FLOPS OR SLIDES CAN BE WORN.
6. CLOSED TOED SHOES MUST BE WORN WHEN NOT SITTING AT ONE'S DESK, SPECIFICALLY WHEN PERFORMING TASKS IN OTHER DEPARTMENTS OR BUILDINGS.
7. IT IS THE RESPONSIBILITY OF EACH EMPLOYEE TO ADHERE TO THESE GUIDELINES.

For the District

For the Union

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