EBDA

EAST BAY DISCHARGERS AUTHORITY
2651 Grant Avenue
San Lorenzo, CA 94580-1841
(510) 278-5910
FAX (510) 278-6547

A Joint Powers Public Agency

Pursuant to the Governor's Executive Order N-25-20 the Commission Meeting scheduled for September 17, 2020 at 9:30 a.m. will be telephonic. The dial-in number for the meeting is +1 669 900 6833 with meeting I.D. #825 3254 3683. Members of the public are encouraged to dial into the meeting using the same number. https://us02web.zoom.us/j/82532543683

COMMISSION MEETING
AGENDA

Thursday, September 17, 2020

9:30 A.M.

EAST BAY DISCHARGERS AUTHORITY
2651 Grant Avenue
San Lorenzo, CA 94580

1. **Call to Order**
2. ~~**Pledge of Allegiance**~~ **(deferred due to remote meeting)**
3. **Roll Call**
4. **Public Forum**

C O N S E N T C A L E N D A R

MOTION
5. **Commission Meeting Minutes of August 20, 2020**
6. **List of Disbursements for August 2020 – See Item FM4**
7. **Preliminary Treasurer's Report for August 2020 – See Item FM5**
8. **Fiscal Year 2019/2020 Year End Expense Summary – See Item FM6**

R E G U L A R C A L E N D A R

INFORMATION
9. **General Manager's Report**
(The General Manager will report on EBDA issues.)

INFORMATION
10. **Report From the Managers Advisory Committee**
(The General Manager will report on the meeting.)

INFORMATION
11. **Report From the Financial Management Committee**
(The General Manager will report on the meeting.)

INFORMATION
12. **Report From the Regulatory Affairs Committee**
(The General Manager will report on the meeting.)

MOTION
13. **Motion Authorizing the General Manager to Execute a Work Order with Larry Walker Associates for a Dilution Study related to Acceptance of**

Cargill Mixed Sea Salt Brine for Discharge at the EBDA Outfall in the Amount of $56,617 - See Item RA9
(The Commission will consider the motion.)

INFORMATION **14. Report From the Operations & Maintenance Committee**
(The General Manager will report on the meeting.)

INFORMATION **15. Items From the Commission and Staff**
(The Commission and staff may address items of general interest.)

16. Adjournment

(Any member of the public may address the Commission at the commencement of the meeting on any matter within the jurisdiction of the Commission. This should not relate to any item on the agenda. It is the policy of the Authority that each person addressing the Commission limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Commission on an agenda item should do so at the time the item is considered. It is the policy of the Authority that oral comments be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available in the Boardroom and are to be completed prior to speaking.)

(In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in an Authority meeting, or you need a copy of the agenda, or the agenda packet, in an appropriate alternative format, please contact the Administrative Assistant at the EBDA office at (510) 278-5910 or kyambao@ebda.org. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.)

(In compliance with SB 343. related writings of open session items are available for public inspection at East Bay Dischargers Authority, 2651 Grant Avenue, San Lorenzo, CA 94580. For your convenience, agenda items are posted on the East Bay Dischargers Authority website located at http://www.ebda.org.)

The next Commission meeting will be held
Thursday, October 15, 2020 at 9:30 a.m.

GLOSSARY OF ACRONYMS

ACWA	Association of California Water Agencies
AQPI	Advanced Quantitative Precipitation Information
AMP	Asset Management Plan
ANPRM	Advanced Notice of Proposed Rulemaking
BAAQMD	Bay Area Air Quality Management District
BACC	Bay Area Chemical Consortium
BACWA	Bay Area Clean Water Agencies
BPA	Basin Plan Amendment
BCDC	Bay Conservation and Development Commission
BOD	Biochemical Oxygen Demand
CARB	California Air Resources Board
CASA	California Association of Sanitation Agencies
CBOD	Carbonaceous Biochemical Oxygen Demand
CDFA	CA Department of Food & Agriculture
CEC	Compound of Emerging Concern
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CMMS	Computerized Maintenance Management System
COH	City of Hayward
CPUC	California Public Utilities Commission
CSL	City of San Leandro
CTR	California Toxics Rule
CVCWA	Central Valley Clean Water Association
CVSAN	Castro Valley Sanitary District
CWA	Clean Water Act
CWEA	CA Water Environment Association
DO	Dissolved Oxygen
DPR	Department of Pesticide Regulation
DSRSD	Dublin San Ramon Services District
DTSC	Department of Toxic Substances Control
EBDA	East Bay Dischargers Authority
EBRPD	East Bay Regional Park District
EIS/EIR	Environmental Impact Statement/Report
EPA	Environmental Protection Agency
FOG	Fats, Oils and Grease
GASB	Government Accounting Standards Board
HEPS	Hayward Effluent Pump Station
JPA	Joint Powers Agreement
LAVWMA	Livermore-Amador Valley Water Management Agency
LOCC	League of California Cities
MAC	Managers Advisory Committee
MCC	Motor Control Center
MCL	Maximum Contaminant Level
MDF	Marina Dechlorination Facility
MG	Million Gallons
MGD	Million Gallons per Day
MMP	Mandatory Minimum Penalty
MOU	Memorandum of Understanding
MSS	Mixed Sea Salt
N	Nitrogen
NACWA	National Association of Clean Water Agencies
NBS	Nature-Based Solutions
NGO	Non-Governmental Organization
NOX	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	Non-Point Source

GLOSSARY OF ACRONYMS

O&M	Operations & Maintenance
OLEPS	Oro Loma Effluent Pump Station
OLSD	Oro Loma Sanitary District
OMB	Office of Management and Budget
P	Phosphorous
PAHs	Polynuclear Aromatic Hydrocarbons
PCBs	Poly Chlorinated Biphenyls
PLC	Programmable Logic Controller
PFAS	Per and Polyfluoroalkyl Substances
POTW	Publicly Owned Treatment Works
PPCPs	Pharmaceutical and Personal Care Products
QA/QC	Quality Assurance / Quality Control
Region IX	Western Region of EPA (CA, AZ, NV & HI)
ReNUWIt	Re-Inventing the Nation's Urban Water Infrastructure Engineering Research Center
RFP	Request For Proposals
RFQ	Request For Qualifications
RMP	Regional Monitoring Program
RO	Reverse Osmosis
RWB	Regional Water Board
RWQCB	Regional Water Quality Control Board
SBS	Sodium Bisulfite
SCADA	Supervisory Control and Data Acquisition
SCAP	Southern California Alliance of POTWs
SEP	Supplementary Environmental Project
SFEI	San Francisco Estuary Institute
SLEPS	San Leandro Effluent Pump Station
SRF	State Revolving Fund
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
TRC	Total Residual Chlorine
TSO	Time Schedule Order
TSS	Total Suspended Solids
UEPS	Union Effluent Pump Station
USD	Union Sanitary District
UV	Ultraviolet Treatment
VFD	Variable Frequency Drive
VOCs	Volatile Organic Compounds
WAS	Waste Activated Sludge
WDR	Waste Discharge Requirements
WEF	Water Environment Federation
WET	Whole Effluent Toxicity or Waste Extraction Test
WIN	Water Infrastructure Network
WLA	Waste Load Allocation (point sources)
WPCF	Water Pollution Control Facility
WQBEL	Water Quality Based Effluent Limitation
WQS	Water Quality Standards
WRDA	Water Resource Development Act
WRF	Water Research Foundation
WWTP	Wastewater Treatment Plant
WWWIFA	Water and Wastewater Infrastructure Financing Agency

CONSENT CALENDAR

Consent calendar items are typically routine in nature and are considered for approval by the Commission with a single action. The Commission may remove items from the Consent Calendar for discussion. Items on the Consent Calendar are deemed to have been read by title. Members of the public who wish to comment on Consent Calendar items may do so during Public Forum.

Item No. 5 Commission Meeting Minutes of August 20, 2020
Item No. 6 List of Disbursements for August 2020 – See Item FM4
Item No. 7 Preliminary Treasurer's Report for August 2020 – See Item FM5
Item No. 8 Fiscal Year 2019/2020 Year End Expense Summary – See Item FM6

Recommendation

Approve Consent Calendar Items No. 5, 6, 7, and 8.

ITEM NO. 5 COMMISSION MEETING MINUTES OF AUGUST 20, 2020

EAST BAY DISCHARGERS AUTHORITY
COMMISSION MEETING MINUTES

August 20, 2020

1. Call to Order

Chair Walters called the telephonic meeting to order pursuant to the Governor's Executive Order N-25-20 at 9:32 A.M. on Thursday, August 20, 2020. Dial-in information for the meeting was provided in the agenda for public attendees.

2. Pledge of Allegiance – Deferred

3. Roll Call

PRESENT:	Sara Lamnin	City of Hayward
	Daniel Walters	Oro Loma Sanitary District
	Ralph Johnson	Castro Valley Sanitary District
	Pauline Russo Cutter	City of San Leandro
	Jennifer Toy	Union Sanitary District

ABSENT: None

OTHERS PRESENT:

Jacqueline Zipkin	East Bay Dischargers Authority
Eric Casher	Legal Counsel
Howard Cin	East Bay Dischargers Authority
Kalena Yambao	East Bay Dischargers Authority
Juanita Villasenor	East Bay Dischargers Authority
Jason Warner	Oro Loma Sanitary District
Alex Ameri	City of Hayward
David Donovan	City of Hayward
Justin Jenson	City of San Leandro
Paul Eldredge	Union Sanitary District
Roland Williams	Castro Valley Sanitary District

4. Public Forum

No member of the public requested to address the Commission at the meeting.

C O N S E N T C A L E N D A R

5. Commission Meeting Minutes of July 16, 2020
6. List of Disbursements for July 2020
7. Preliminary Treasurer's Report for July 2020

Commissioner Cutter moved to approve the consent calendar. The motion was seconded by Commissioner Toy and carried unanimously 5-0, by roll call vote.

Ayes:	Commissioners Cutter, Johnson, Toy, Lamnin, Chair Walters
Noes:	None
Absent:	None
Abstain:	None

R E G U L A R C A L E N D A R

8. General Manager's Report

The General Manager (GM) provided an update on the current status of the LAVWMA Agreement negotiations and an update on the total chlorine residual Basin Plan Amendment. The GM also discussed streamlining the timesheet approval process for Commissioners; the GM proposed timesheets be approved via email without the need to physically print and scan or return the document. The Commission agreed to this change.

The GM then provided an update on the state PFAS sampling order. While they are requiring all wastewater treatment plants elsewhere in the state to sample influent, effluent, and biosolids for PFAS, the State Water Board has agreed to BACWA's recommendation to conduct a regional study of PFAS in lieu of sampling at every plant. BACWA will consider initiation and funding approval of the first phase of the study at its next board meeting. Finally, the GM gave an update on the Authority's inquiries into local alternative banking solutions, which are ongoing.

9. Report from the Managers Advisory Committee (MAC)

The GM reported on the MAC meeting of August 14, 2020, at which the LAVWMA negotiation, brine project revenue allocation, emergency response contract procurement, and organics codigestion opportunities were discussed. The GM reported that the MAC members also shared information on pandemic operations and staffing.

10. Report from the Financial Management Committee

The GM reported on the Financial Management Committee, which met on August 18, 2020. The GM discussed current investment strategy, reviewed the Financial Audit schedule, and provided an update on the Cargill Mixed Sea Salt Brine Project, outlining the commitments Cargill has made to reimburse EBDA for due diligence costs. The Committee recommends increasing the Authority's hourly reimbursement rate in the future to address additional overhead costs. The GM then reviewed the Larry Walker and Brown and Caldwell Motions, for which the Committee recommended approval.

11. Motion Authorizing the General Manager to Execute a Contract with Larry Walker Associates for Technical Assistance Related to Acceptance of Cargill Mixed Sea Salt Brine for Discharge at the EBDA Outfall in the Amount of $59,000

Commissioner Cutter moved to approve the motion authorizing the GM to execute a contract with Larry Walker Associates. The motion was seconded by Commissioner Lamnin and carried unanimously, 5-0 by roll call vote.

Ayes: Commissioners Cutter, Johnson, Toy, Lamnin, Chair Walters
Noes: None
Absent: None
Abstain: None

12. Motion Authorizing the General Manager to Execute a Contract with Brown and Caldwell for Technical Assistance Related to Acceptance of Cargill Mixed Sea Salt Brine for Discharge at the EBDA Outfall in the Amount of $102,684

Commissioner Cutter moved to approve the motion authorizing the GM to execute a contract with Brown and Caldwell. The motion was seconded by Commissioner Lamnin and carried unanimously, 5-0 by roll call vote.

Ayes: Commissioners Cutter, Johnson, Toy, Lamnin, Chair Walters
Noes: None
Absent: None
Abstain: None

13. Resolution Adopting the Authority's Electronic Signature Policy

The GM reviewed the Electronic Signature Policy. Commissioner Cutter moved to approve the resolution adopting the Authority's Electronic Signature Policy. The motion was seconded by Commissioner Toy and carried unanimously, 5-0 by roll call vote.

Ayes: Commissioners Cutter, Johnson, Toy, Lamnin, Chair Walters
Noes: None
Absent: None
Abstain: None

14. Report from the Operations and Maintenance Committee (O&M)

The O&M Manager reported on the Operations and Maintenance Committee, which met on August 18, 2020 and discussed the status of EBDA facilities. The O&M Manager reviewed NPDES Compliance data for July, which included one high fecal coliform reading still within regulatory compliance, and preliminary data for August. The O&M Manager then reported on training and testing of facility generators being conducted in preparation for potential rolling blackouts.

The O&M Manager continued the report giving an overview of current projects. At UEPS, the transformer was delivered for Pump No. 2 and is set for installation next month. For the HEPS MCC Project, the electrical training was completed, and the recording will be available for Hayward staff's use. At OLEPS, a meeting between Calcon, EBDA, and Oro Loma staff was held on July 30th discussing installation and equipment needed for the wet well hypochlorite system, and the procurement process continues for the main electrical switchboard upgrade.

At SLEPS, the emergency generator repair is complete. At Skywest, the insurance claim associated with the recycled water pipeline leak and embankment repair is now post-inspection, and CSRMA's claims examiner recommended it for approval. Lastly, the O&M

Manager provided updates on the current status of the transport system repair coupling and seals and current EBDA office repairs.

The GM then gave an update on regional efforts related to Wastewater-based Epidemiology. The University of California at Berkeley has received funding to set up a lab capable of analyzing 100 wastewater samples per day for SARS-CoV-2, and they are still seeking funding to cover the sample analysis costs. A Working Group and Steering Committee are meeting regularly to inform regional efforts and ensure coordination. Lastly, the GM gave an update on the AQPI project. The radar remains set for installation in late September, and a subcommittee is developing a video presentation for public outreach to seek further funding for the project.

15. Report from the Personnel Committee

The GM reported on the Personnel Committee, which met on August 17, 2020. The Committee reviewed the Conflict of Interest Code and supported staff's recommendation to leave the code as-is and consider clarifying revisions in the next review cycle. The GM then reviewed the summary of the Authority's FY 2019/2020 accomplishments noting that EBDA will undergo strategic planning and reformat the accomplishments accordingly in the future.

Finally, the GM reviewed the draft Personnel Policy revisions. The Committee requested that staff investigate best practices from other agencies with respect to benefits and disciplinary procedures for temporary and part-time staff. At the next Committee meeting, staff will also facilitate discussion of whether the amended policies should go into effect retroactively or commence next fiscal year.

16. Items from Commission and Staff

The Chair thanked the Commission for their work on the JPA and LAVWMA negotiations.

18. Adjournment

Chair Walters adjourned the meeting at 10:37 A.M.

Jacqueline Zipkin
General Manager

ITEM NO. 9 GENERAL MANAGER'S REPORT
The General Manager will discuss items of interest concerning EBDA.

ITEM NO. 10 REPORT FROM THE MANAGERS ADVISORY COMMITTEE

MANAGERS ADVISORY COMMITTEE
AGENDA

Thursday, September 10, 2020

1:30 P.M.

Via Zoom

1. **LAVWMA Agreement**

2. **Brine Project**

    a. **Due Diligence Updates**
    b. **Corrosion Field Assessment**
    c. **CEQA Process**
    d. **Revenue Allocation**

3. **Emergency Response RFP(s)**

4. **NPDES Permit Renewal**

5. **EBDA Commission Package**
    - Finance
    - O&M
    - Regulatory

6. **COVID Response and Wastewater-based Epidemiology**

7. **EBDA Managers Round Robin**

EBDA

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2651 Grant Avenue
San Lorenzo, CA 94580-1841
(510) 278-5910
FAX (510) 278-6547

A Joint Powers Public Agency

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ITEM NO. 11

FINANCIAL MANAGEMENT COMMITTEE AGENDA

Tuesday, September 15, 2020

10:30 A.M.

East Bay Dischargers Authority
2651 Grant Avenue, San Lorenzo, CA 94580

Committee Members: Walters (Chair); Toy

FM1. Call to Order

FM2. Roll Call

FM3. Public Forum

FM4. List of Disbursements for August 2020
(The Committee will review the List of Disbursements for the month of August 2020.)

FM5. Preliminary Treasurer's Report for August 2020
(The Committee will review the Preliminary Treasurer's Report for the month of August 2020.)

FM6. Fiscal Year 2019/2020 Year End Expense Summary
(The Committee will review the preliminary expenses for FY 2019/2020.)

FM7. Review of Annual CERBT Fund and Pension Valuation for Fiscal Year Ending June 30, 2020
(The Committee will discuss the Authority's OPEB CERBT Fund and Pension valuation.)

FM8. Banking Alternatives Analysis
(The Committee will discuss Authority banking alternatives.)

FM9. LAVWMA Negotiation Update
(The Committee will discuss the status of the LAVWMA negotiations.)

FM10. Adjournment

(Any member of the public may address the Committee at the commencement of the meeting on any matter within the jurisdiction of the Committee. This should not relate to any item on the agenda. Each person addressing the Committee should limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Committee on any agenda item should do so at the time the item is considered. Oral comments should be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available and are to be completed prior to speaking.)

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The next Financial Management Committee meeting is scheduled on Tuesday, October 13, 2020 at 10:30 a.m.

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 15, 2020

ITEM NO. FM4 LIST OF DISBURSEMENTS FOR AUGUST 2020

The itemized List of Disbursements for the month of August 2020 totaled $802,834.47.

Reviewed and Approved by:

Dan Walters, Chair Date
Financial Management Committee

Jacqueline T. Zipkin Date
Treasurer

EAST BAY DISCHARGERS AUTHORITY
Cash Disbursement
August 2020

CHECKS (SORTED BY AMOUNT)

Check #	Check Date	Invoice #	Vendor Name	Description	Itemized Charges	Invoice Amount	Check Amount
24822	8/14/2020	EBM-BDO-01350	EAST BAY MUNICIPAL UTILITY DISTRICT	2020/2021 BACWA MEMBERSHIP AND SPECIAL PROGRAM FEE		462,861.00	462,861.00
24820	8/14/2020	378379	CITY OF SAN LEANDRO	O&M - JUNE		66,956.98	66,956.98
24847	8/31/2020	2609	UNION SANITARY DISTRICT	O&M - JULY		32,291.68	32,291.68
24821	8/14/2020	002604	UNION SANITARY DISTRICT	O&M - JUNE		28,726.55	28,726.55
24842	8/14/2020	3197494-00	BUCKLES-SMITH ELECTRIC COMPANY	UEPS PUMP #2 VFD TRANSFORMER		10,451.56	10,451.56
24845	8/31/2020	6333	ORO LOMA SANITARY DISTRICT	FY 2021 RENT AND FEES		8,880.00	8,880.00
24835	8/14/2020	12062822	HACH COMPANY	WIMS SOFTWARE SUBSCRIPTION RENEWAL		6,344.00	6,344.00
24852	8/31/2020	48698792	UNIVAR	SODIUM BISULFITE - DELIVERED 08/19/20		5,899.59	5,899.59
24836	8/14/2020	48686263	UNIVAR	SODIUM BISULFITE - DELIVERED 08/05/20		5,852.92	5,852.92
24850	8/31/2020	May-20	DEBORAH QUINN	ACCOUNTING SERVICES - MAY		5,550.00	5,550.00
24830	8/14/2020	16296	PACIFIC ECORISK	CHRONIC AND ACUTE TOXICITY TESTING		4,824.00	4,824.00
24826	8/14/2020	47121	CALCON	HEPS PM'S		1,249.50	4,485.55
24826	8/14/2020	47119	CALCON	OPS CENTER SCADA SERVICE CALLS		1,097.25	
24826	8/14/2020	47118	CALCON	SLEPS PM'S - JUNE 2020		872.05	
24826	8/14/2020	47132	CALCON	MDF SERVICE CALLS		709.50	
24826	8/14/2020	47120	CALCON	OLEPS SERVICE CALL		557.25	
24825	8/14/2020	2432532	PETERSON POWER SYSTEM	SLEPS GENERATOR SERVICE CALLS		3,876.59	3,876.59
24854	8/31/2020	24-Aug	AZYURA	WATERBITS LICENSING AND SMR/EDMR REPORTING SERVICES		3,750.00	3,750.00
24843	8/14/2020	I-01	SOTIRIOS L KOLLIAS	DRY ROT AND WINDOW SILL REPAIRS AT EBDA ADMIN		3,350.00	3,350.00
24858	8/31/2020	027	CURRIE ENGINEERS	HEPS MCC CONSTRUCTION MANAGEMENT - JULY		1,629.25	2,360.75
24858	8/31/2020	028	CURRIE ENGINEERS	HEPS MCC CONSTRUCTION MANAGEMENT - AUGUST		731.50	
24819	8/14/2020	381799	VANTAGEPOINT	ICMA DEFERRED COMPENSATION FOR PAY PERIOD ENDED 08/15/20		2,317.94	2,317.94
24844	8/31/2020	390215	VANTAGEPOINT	ICMA DEFERRED COMPENSATION FOR PAY PERIOD ENDED 08/31/20		2,317.94	2,317.94
24849	8/31/2020	47221	CALCON	MDF PM'S AND SERVICE CALLS		2,238.83	2,238.83
24857	8/31/2020	21797314	JOHNSON CONTROLS	FIRE ALARM SERVICE, TESTING & MONITORING		2,252.50	1,846.10
24857	8/31/2020	11420190109025_1	JOHNSON CONTROLS	CREDIT MEMO FOR FIRE ALARM SERVICE, TESTING & MONITORING		(406.40)	
24846	8/31/2020	52205702	CITY OF HAYWARD	BENEFIT PREMIUMS - AUGUST		1,330.77	1,330.77
24834	8/14/2020	4246044555687620	US BANK	REMOTE DATA BACKUPS	426.00	1,135.83	1,135.83
24834	8/14/2020	4246044555687620	US BANK	WEF - REGISTRATION FEE	299.00		
24834	8/14/2020	4246044555687620	US BANK	CSDA - REGISTRATION FEE	150.00		
24834	8/14/2020	4246044555687620	US BANK	INTERMEDIA	86.41		
24834	8/14/2020	4246044555687620	US BANK	HOME DEPOT - SUPPLIES	58.13		
24834	8/14/2020	4246044555687620	US BANK	CWEA - REGISTRATION FEE	50.00		
24834	8/14/2020	4246044555687620	US BANK	76 - GAS EBDA TRUCK	47.11		
24834	8/14/2020	4246044555687620	US BANK	HOME DEPOT	19.45		
24834	8/14/2020	4246044555687620	US BANK	USPS	14.05		
24834	8/14/2020	4246044555687620	US BANK	HOME DEPOT - SUPPLIES	10.84		
24834	8/14/2020	4246044555687620	US BANK	EAST BAY TIMES SUBSCRIPTION	9.95		
24834	8/14/2020	4246044555687620	US BANK	APPLE CLOUD - CELL PHONE BACKUP	0.99		
24834	8/14/2020	4246044555687620	US BANK	CSDA - REGISTRATION FEE CREDIT	(50.00)		
24853	8/31/2020	0820-22	BEECHER ENGINEERING, INC	OLEPS ELECTRICAL UPGRADE		800.00	1,000.00
24853	8/31/2020	0820-23	BEECHER ENGINEERING, INC	HEPS MCC		200.00	
24855	8/31/2020	612881	CALTEST	LAB TESTING SERVICES - JULY		864.90	864.90
24839	8/14/2020	Jul-20	EVERARDO OROZCO LANDSCAPE MANAGEMENT	LANDSCAPING SERVICES - JULY		375.00	725.00

EAST BAY DISCHARGERS AUTHORITY
Cash Disbursement
August 2020

Check #	Check Date	Invoice #	Vendor Name	Description	Itemized Charges	Invoice Amount	Check Amount
24839	8/14/2020	Jun-20	EVERARDO OROZCO LANDSCAPE MANAGEMENT	LANDSCAPING SERVICES - JUNE		350.00	
24838	8/14/2020	97827	DONLEE PUMP COMPANY	OLEPS SERVICE CALL		640.81	640.81
24824	8/14/2020	1746192-20	SCIF	WORKERS COMPENSATION PREMIUM - AUGUST		631.25	631.25
24860	8/31/2020	3208664-00	BUCKLES-SMITH ELECTRIC COMPANY	UEPS PUMP #6 VFD FREIGHT BILL		500.00	500.00
24831	8/14/2020	8207	CAYUGA INFORMATION SYSTEMS	IT SERVICES - JULY		360.00	360.00
24823	8/14/2020	510-278-5910-914-3	AT&T	TELEPHONE SERVICE ADMIN BUILDING - JULY		295.79	295.79
24832	8/14/2020	197864304	ORKIN	QUARTERLY PEST CONTROL AT MDF		290.00	290.00
24859	8/31/2020	141726DIG20	USA NORTHERN CA & NV	REGULATORY COSTS USA		271.38	271.38
24828	8/14/2020	508213136-00001	VERIZON WIRELESS	CELLPHONES - JULY		193.77	193.77
24837	8/14/2020	EBD3061	ALPHA ANALYTICAL LABORATORIES	LAB SAMPLES - JULY		165.00	165.00
24848	8/31/2020	510-483-0439 716 6	AT&T	TELEPHONE SERVICE AT MDF - AUG		113.28	113.28
24833	8/14/2020	520829	R-COMPUTER	4GB DESKTOP MEMORY		100.24	100.24
24856	8/31/2020	3086785	CALTRONICS	COPIER USAGE - JULY - AUG		84.49	84.49
24851	8/31/2020	10857	TOWN & COUNTRY	JANITORIAL SERVICES - AUGUST		165.00	82.50
24851	8/31/2020	11123	TOWN & COUNTRY	JANITORIAL SERVICES CREDIT - AUGUST		(82.50)	
24840	8/14/2020	45313	COMPUTER COURAGE	WEBSITE HOSTING - AUGUST		46.30	46.30
24841	8/14/2020	37659472013	DIRECTV	AT&T BUNDLE DISCOUNT		30.64	30.64
24827	8/14/2020	7-081-58526	FEDEX	DELIVERY SERVICE		29.30	29.30
24829	8/14/2020	9860573224	VERIZON WIRELESS	MODEM FOR SCADA 07/11 - 08/10		22.70	22.70
24738	8/14/2020	16296	PACIFIC ECORISK	VOID CHECK		(4,824.00)	(4,824.00)
				TOTAL CHECK PAYMENTS			**669,271.93**
				ELECTRONIC PAYMENTS			
		5105948980-0	PACIFIC GAS & ELECTRIC	GAS AND ELECTRIC		38,158.92	38,158.92
		5105948980-0	PACIFIC GAS & ELECTRIC	GAS AND ELECTRIC		36,671.04	36,671.04
		100000016113287	CALPERS	HEALTH PREMIUMS - AUG 2020		6,250.43	6,250.43
		100000016072177	CALPERS	PENSION CONTRIBUTION, CLASSIC 07/16/20-07/31/20		4,355.14	4,355.14
		100000016100544	CALPERS	PENSION CONTRIBUTION, CLASSIC 08/01/20-08/15/20		4,355.14	4,355.14
		100000016072215	CALPERS	PENSION CONTRIBUTION, PEPRA 07/16/20-07/31/20		247.82	247.82
		100000016100646	CALPERS	PENSION CONTRIBUTION, PEPRA 08/01/20-08/15/20		247.82	247.82
			WELLS FARGO	CLIENT ANALYSIS SERVICE CHARGE - JULY		59.54	59.54
				TOTAL ELECTRONIC PAYMENTS			**90,345.85**
				PAYROLL			
		8/31	ADP, LLC	PAYROLL PERIOD: 08/16-31/2020		22,844.11	22,844.11
		8/15	ADP, LLC	PAYROLL PERIOD: 08/01-15/2020		20,263.33	20,263.33
		561761030	ADP, LLC	PAYROLL FEES, PERIOD: 07/16-31/2020		60.25	60.25
		562596684	ADP, LLC	PAYROLL FEES, PERIOD: 08/01-15/2020		49.00	49.00
				TOTAL PAYROLL			**43,216.69**
				TOTAL DISBURSEMENTS			**802,834.47**

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 15, 2020

ITEM NO. FM5 PRELIMINARY TREASURER'S REPORT FOR AUGUST 2020

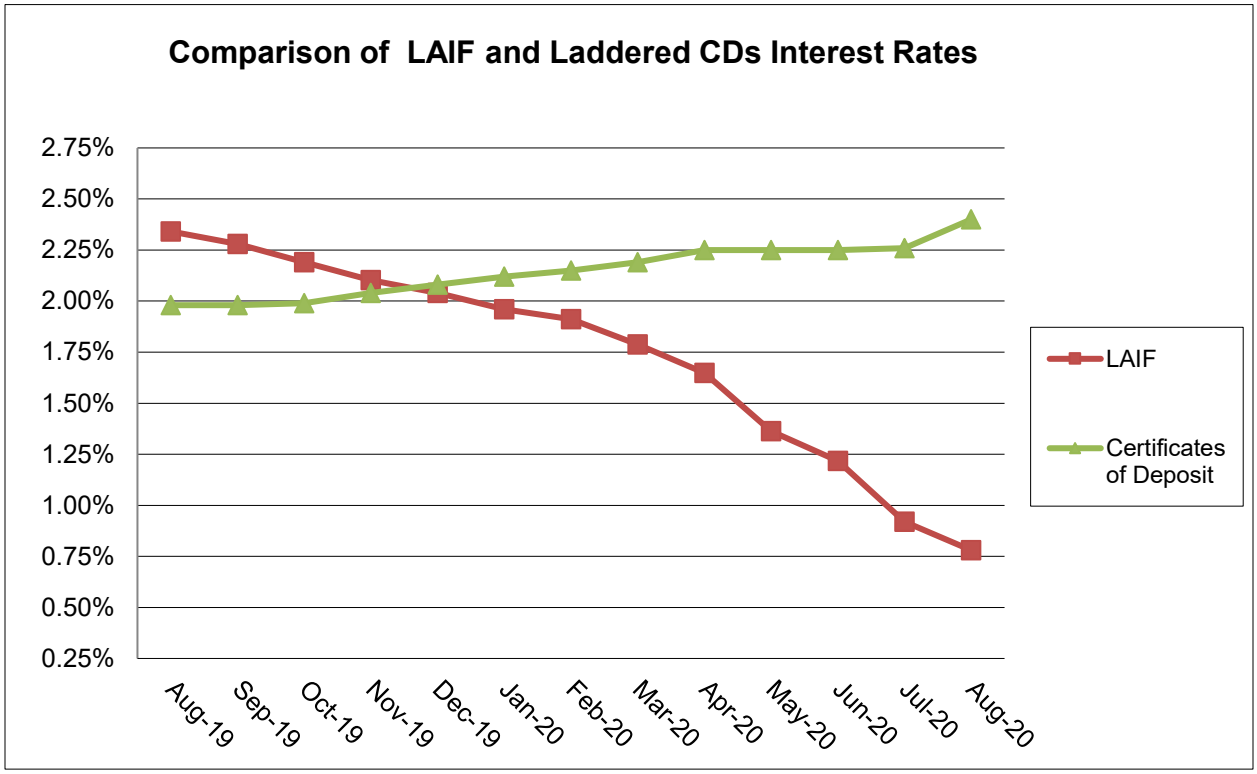
The beginning cash balance on August 1, 2020 was $3,409,137.35. The ending cash balance on August 31, 2020 was $ 3,335,118.66. Total receipts for the month were $728,815.78, and disbursements were $802,834.47.

EBDA currently has a three-pronged investment approach that includes laddered CDs, Local Agency Investment Fund (LAIF), and Wells Fargo accounts. As directed by the Financial Management Committee, funds are currently being transferred to the Authority's checking account and/or LAIF as CDs mature. Staff will continue to work with the Committee on investment strategy.

Current market value of EBDA's CD investment portfolio is $357,629.70. The average annual yield of the CDs is 2.40%.

EBDA's LAIF balance ending on August 31, 2020 was $2,246,110.12. The LAIF interest rate for period ending August 31, 2020 is 0.78%.

Approval is recommended.



EAST BAY DISCHARGERS AUTHORITY
PRELIMINARY
TREASURER'S REPORT
AUGUST 31, 2020

FUND	DESCRIPTION	BEGINNING CASH BALANCE	DEBITS (INCREASE)	CREDITS (DECREASE)	ENDING CASH BALANCE
12	OPERATIONS & MAINTENANCE	872,145.35	541,599.91	515,528.16	898,217.10
13	PLANNING & SPECIAL STUDIES	322,143.55	183,931.17	269,479.00	236,595.72
14	RECLAMATION O & M (SKYWEST)	158,830.70		165.00	158,665.70
31	REPLACEMENT	2,056,017.75	3,284.70	17,662.31	2,041,640.14
	TOTALS	3,409,137.35	728,815.78	802,834.47	3,335,118.66

Aug-20
9/9/20

SUPPLEMENTAL TREASURERS REPORT

DATE	TRANSACTION	RECEIPT	DISBURSEMENT CHECKING	DISBURSEMENT PAYROLL	PAYROLL TRANSFER	LAIF TRANSFER	CD TRANSFER	CD INTEREST & EXPENSES	WELLS FARGO CHECKING BALANCE	WELLS FARGO PAYROLL BALANCE	LAIF BALANCE	WELLS FARGO CERTIFICATES OF DEPOSIT	TOTAL CASH
08/01/20	BALANCE								795,317.79	11,885.52	2,246,110.12	355,823.92	3,409,137.35
08/03/20	DEPOSIT - CVSD	89,322.58							884,640.37	11,885.52	2,246,110.12	355,823.92	3,498,459.93
08/03/20	PAYROLL TRANSFER				20,000.00				864,640.37	31,885.52	2,246,110.12	355,823.92	3,498,459.93
08/04/20	ELECTRONIC BILL PAY		38,158.92						826,481.45	31,885.52	2,246,110.12	355,823.92	3,460,301.01
08/07/20	PAYROLL FEES			60.25					826,481.45	31,825.27	2,246,110.12	355,823.92	3,460,240.76
08/07/20	ANALYSIS FEE	84.83							826,566.28	31,825.27	2,246,110.12	355,823.92	3,460,325.59
08/07/20	ANALYSIS FEE	(27.33)							826,538.95	31,825.27	2,246,110.12	355,823.92	3,460,298.26
08/10/20	DEPOSIT - OLSD	191,348.04							1,017,886.99	31,825.27	2,246,110.12	355,823.92	3,651,646.30
08/10/20	INTEREST	623.29						623.29	1,017,886.99	31,825.27	2,246,110.12	356,447.21	3,652,269.59
08/11/20	DEPOSIT - USD	444,802.96							1,462,689.95	31,825.27	2,246,110.12	356,447.21	4,097,072.55
08/11/20	DEPOSIT	2,500.00							1,465,189.95	31,825.27	2,246,110.12	356,447.21	4,099,572.55
08/11/20	ANALYSIS FEE		59.54						1,465,130.41	31,825.27	2,246,110.12	356,447.21	4,099,513.01
08/11/20	ELECTRONIC BILL PAY		6,250.43						1,458,879.98	31,825.27	2,246,110.12	356,447.21	4,093,262.58
08/11/20	ELECTRONIC BILL PAY		4,355.14						1,454,524.84	31,825.27	2,246,110.12	356,447.21	4,088,907.44
08/11/20	ELECTRONIC BILL PAY		247.82						1,454,277.02	31,825.27	2,246,110.12	356,447.21	4,088,659.62
08/13/20	PAYROLL			20,263.33					1,454,277.02	11,561.94	2,246,110.12	356,447.21	4,068,396.29
08/14/20	DISBURSEMENT		604,713.72						849,563.30	11,561.94	2,246,110.12	356,447.21	3,463,682.57
08/14/20	VOID CHECK		(4,824.00)						854,387.30	11,561.94	2,246,110.12	356,447.21	3,468,506.57
08/17/20	PAYROLL TRANSFER				20,000.00				834,387.30	31,561.94	2,246,110.12	356,447.21	3,468,506.57
08/21/20	PAYROLL FEES			49.00					834,387.30	31,512.94	2,246,110.12	356,447.21	3,468,457.57
08/21/20	ELECTRONIC BILL PAY		4,355.14						830,032.16	31,512.94	2,246,110.12	356,447.21	3,464,102.43
08/21/20	ELECTRONIC BILL PAY		247.82						829,784.34	31,512.94	2,246,110.12	356,447.21	3,463,854.61
08/28/20	PAYROLL			22,844.11					829,784.34	8,668.83	2,246,110.12	356,447.21	3,441,010.50
08/31/20	ELECTRONIC BILL PAY		36,671.04						793,113.30	8,668.83	2,246,110.12	356,447.21	3,404,339.46
08/31/20	PAYROLL TRANSFER				20,000.00				773,113.30	28,668.83	2,246,110.12	356,447.21	3,404,339.46
08/31/20	DISBURSEMENT		69,382.21						703,731.09	28,668.83	2,246,110.12	356,447.21	3,334,957.25
08/31/20	INTEREST	161.37						161.37	703,731.09	28,668.83	2,246,110.12	356,608.58	3,335,118.62
08/31/20	DIVIDEND	0.04						0.04	703,731.09	28,668.83	2,246,110.12	356,608.62	3,335,118.66
	TOTAL	728,815.78	759,617.78	43,216.69	60,000.00	-	-	784.70					
	CURRENT BALANCE								703,731.09 ①	28,668.83 ②	2,246,110.12 ③	356,608.62 ④	3,335,118.66

Reconciliation

①	Per Bank Statement @08/31/20	$ 773,173.30
	Less: Outstanding Checks	69,442.21
		$ 703,731.09
②	Per Bank Statement @ 08/31/20	$ 28,668.83
③	Per LAIF Statement @ 08/31/20	$ 2,246,110.12
④	Per Treasurer's Report @08/31/20	$ 356,608.62
	Fair Market Value Increase/Decrease	1,021.08
	Per Investment Statement @08/31/20	$ 357,629.70

The Supplemental Treasurer's Report is prepared monthly by the General Manager. It also serves as EBDA's cash and

CD PORTFOLIO

Institution	Description	Purchase Date	Maturity Date	Estimated Annual Yield	Quantity	Current Market Value
BARCLAYS BANK	BARCLAYS BANK CD WILMINGTON DE ACT/365 FDIC INSURED CPN 1.950% DUE 09/21/20 DTD 09/20/17 FC 03/20/18 CUSIP 06740KKU0	9/20/2017	9/21/2020	1.94%	50,000	50,055.00
BARCLAYS BANK Total						50,055.00
CAPITAL ONE BK USA NA	CAPITAL ONE BK USA NA CD GLEN ALLEN VA ACT/365 FDIC INSD CPN 2.000% DUE 11/02/20 DTD 11/01/17 FC 05/01/18 CUSIP 1404206A3	11/1/2017	11/2/2020	1.99%	50,000	50,169.50
CAPITAL ONE BK USA NA Total						50,169.50
CITIBANK NA	CITIBANK NA CD SIOUX FALLS SD ACT/365 FDIC INSD CPN 2.900% DUE 05/24/21 DTD 05/23/18 FC 11/23/18 CUSIP 17312QM22	5/23/2018	5/24/2021	2.84%	50,000	51,039.00
CITIBANK NA Total						51,039.00
MORGAN STANLEY BK NA	MORGAN STANLEY BK NA CD SALT LAKE CTY UT ACT/365 FDIC INSD CPN 2.500% DUE 02/08/21 DTD 02/08/18 FC 08/08/18 CUSIP 61747MJ93	1/30/2018	2/8/2021	2.47%	50,000	50,542.50
MORGAN STANLEY BK NA	MORGAN STANLEY BK NA CD SALT LAKE CTY UT ACT/365 FDIC INSD CPN 2.800% DUE 04/05/21 DTD 04/05/18 FC 10/05/18 CUSIP 61747MS69	4/5/2018	4/5/2021	2.75%	50,000	50,813.50
MORGAN STANLEY BK NA Total						101,356.00
Grand Total						252,619.50
Average Estimated Annual Yield						2.40%
Cash & Sweep Balances						105,010.20
Snapshot Market Value on August 31, 2020						**357,629.70**

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 15, 2020

ITEM NO. FM6 FISCAL YEAR 2019/2020 YEAR END EXPENSE SUMMARY

Recommendation
Review year end expenses and provide direction to staff on use of underspent budget.

Background
This staff summary presents agency preliminary final expense summary for FY 2019/2020.

Discussion
Overall, EBDA's annual expenses were 17% under budget. The O&M Fund was 13% under budget, thanks to optimization of operations and maintenance and a fortunate distribution of storms during the winter resulting in decreased energy costs. The Skywest Fund was 43% under budget thanks to optimized operation and deferral of some capital expenditures until the future of the golf course and Hayward's future recycled water project becomes clearer.

The Special Projects Fund ended the year 22% under budget. Spending on the Transport System Evaluation was less than anticipated due to the decision to defer inspection of the 96" line. In addition, utilization of placeholder funds for JPA studies was not required. Work on several other projects is continuing in FY 2020/2021. Per the Commission's concurrence as part of the budget adoption in May 2020, funds will be carried over for ongoing projects. The table below summarizes proposed carryover.

Project	**Carryover Funds**	**Comments**
Transport System Inspection	$20,000	Funds required to complete the project.
Operator Training Modules	$16,000	A $16,000 50% progress payment was made on 3/16/2020. Work is ongoing.
AQPI	$29,000	MOU approval by Sonoma Water was delayed due to COVID-19. The project is expected to proceed this fiscal year.
JPA Legal Support	$42,000	Recommended carry over for LAVWMA agreement, policy development, and JPA-related questions
Total	**$107,000**	

The Year End Expense Summary for FY 2019/2020 is attached for the Committee's review. Expenses are presented by Program and by Account Number. These categories have been grouped to provide a summary overview of Authority expenses. The tables include discussion of particular items that varied significantly (>10%) from the budget. Staff notes that this is a preliminary summary, and additional expenses may come in before the fiscal year is officially closed.

Accounting for carrying over the project funds listed above, the Fiscal Year 2020/2021 underrun available to the agencies is approximately $758,000. Staff is seeking direction on distribution of these funds. Historically, funds were returned to the agencies as a credit against the subsequent fiscal year's bills. Last year, funds were used to prefund OPEB and pension liabilities. As discussed in Item No. FM7, the OPEB trust is now funded over the target level. The Commission may consider using unspent funds to make an additional discretionary payment to reach or approach the pension funding target of 95%. The Commission could also consider moving unspent funds into the Renewal and Replacement Fund to offset future costs. Finally, the Commission could consider crediting all or a portion of the funds back to the agencies.

East Bay Dischargers Authority

EXPENSE SUMMARY BY PROGRAM

FY 2019/20 THROUGH JUNE 30, 2020 (100% of YEAR)

	YTD Expenses	Budget	Variance	% of Budget	Explanations for Variance Over 10%
O&M EFFLUENT DISPOSAL					
General Administration	$1,018,026.40	$1,204,602.00	($186,576)	85%	Under budget due to salary savings associated with Administrative Assistant's medical leave.
Outfall & Forcemains	$135,165.68	$181,181.00	($46,015)	75%	Under budget due to certain maintenance activities deferred until after Shelter-in-Place.
San Leandro Pump Station	$106,276.80	$110,636.00	($4,359)	96%	
Marina Dechlor Facility	$392,286.68	$479,771.00	($87,484)	82%	Under budget due to operational efficiencies and minimal wet weather.
Oro Loma Pump Station	$451,708.77	$480,726.00	($29,017)	94%	
Hayward Pump Station	$130,361.73	$142,181.00	($11,819)	92%	
Alvarado Pump Station	$304,599.99	$358,181.00	($53,581)	85%	Under budget due to minimal wet weather.
Bay & Effluent Monitoring	$454,323.18	$500,090.00	($45,767)	91%	
TOTAL O&M EFFLUENT DISPOSAL	**$2,992,749**	**$3,457,368**	**($464,619)**	**87%**	
SPECIAL PROJECTS					
NPDES Permit Fees	$492,846.00	$500,000.00	($7,154)	99%	
Regional Monitoring Program	$240,730.00	$280,000.00	($39,270)	86%	Estimate based on prior years was higher than actual.
Nutrient Surcharge	$273,461.00	$273,000.00	$461	100%	
Water Environment Research Foundation	$22,276.92	$25,000.00	($2,723)	89%	Under budget due to slight decrease under revised dues structure.
Brine Project Development	$8,218.95	$0.00	$8,219	100%	Tracking of spending on the Cargill project that was not budgeted in FY 19/20.
Transport System Evaluation	$11,759.32	$70,000.00	($58,241)	17%	Some of the seismic evaluation work was completed in FY 18/19.
JPA Evaluation Studies	$0.00	$50,000.00	($50,000)	0%	Studies were not identified.
JPA Legal Support	$101,160.00	$150,000.00	($48,840)	67%	Of the total $150k contract for legal support, a significant portion was incurred in FY18/19.
Website Update	$17,768.70	$20,000.00	($2,231)	89%	Project was completed efficiently.
Advanced Quantitative Precipitation Information (AQPI)	$0.00	$29,000.00	($29,000)	0%	One-time payment will be carried over to FY 2020/2021 due to project delays.
Disaster Cost Recovery Plan Implementation	$12,194.50	$50,000.00	($37,806)	24%	Bulk of expenses were billed in FY 18/19.
Operator Training Modules	$16,000.00	$32,000.00	($16,000)	50%	Project is 50% complete. 50% of budget will be carried over to FY 2020/2021.
NPDES Testing - CSL	$2,408.00	$16,500.00	($14,092)	15%	Agencies are being billed directly for testing beginning in September 2019.
NPDES Testing - OLSD	$2,169.10	$15,500.00	($13,331)	14%	Agencies are being billed directly for testing beginning in September 2019.
NPDES Testing - HAY	$5,044.10	$18,500.00	($13,456)	27%	Agencies are being billed directly for testing beginning in September 2019.
NPDES Testing - USD	$4,551.00	$18,500.00	($13,949)	25%	Agencies are being billed directly for testing beginning in September 2019.
TOTAL SPECIAL PROJECTS	**$1,210,588**	**$1,548,000**	**($337,412)**	**78%**	
WATER RECYCLING					
Skywest Golf Course	$56,936	$120,000	($63,064)	47%	Under budget as a result of optimization of operations and deferral of capital projects.
TOTAL WATER RECYCLING	**$56,936**	**$120,000**	**($63,064)**	**47%**	
TOTAL PROGRAMS	**$4,260,273**	**$5,125,368**	**($865,095)**	**83%**	

East Bay Dischargers Authority

EXPENSE SUMMARY BY ACCOUNT

FY 2019/20 THROUGH JUNE 30, 2020 (100% OF YEAR)

	YTD Expenses	Budget	Variance	% of Budget	Last FY Expenses	Explanations for Variance Over 10%
4010 - Salary	$486,467.94	$546,019.00	($59,551)	89%	$479,867.67	Under budget due to the Administrative Assistant's (AA) medical leave. The temporary AA was billed via contract for the first two quarters.
4020 - Benefits	$245,865.87	$285,649.00	(39,783)	86%	$222,352.32	Under budget due to reduced AA payroll contributions to deferred comp and pension, as well as reduction in Workers Comp rate.
4030 - Commissioner Compensation	$34,320.00	$45,000.00	(10,680)	76%	$39,630.00	Budget is conservatively based on maximum number of meetings, which was higher than what was held this year.
4070 - Insurance	$48,213.75	$54,000.00	(5,786)	89%	$45,247.57	Budget was conservative and based on higher increases than materialized.
4080 - Memberships & Subscriptions	$137,761.01	$171,550.00	(33,789)	80%	$143,677.95	Budget included membership in ISLE TAG that MAC decided to discontinue, and Water Research Foundation dues were lower than budgeted.
4100 - Supplies, Variable	$231,202.29	$274,000.00	(42,798)	84%	$212,599.99	Chemical use was lower this year due to minimal wet weather.
4100 - Supplies, Fixed	$14,493.70	$24,000.00	(9,506)	60%	$17,940.32	Significant spending on supplies for office and facilities was not required.
4110 - Contract Services	$39,682.90	$76,000.00	(36,317)	52%	$60,070.05	Some maintenance activities were deferred until after Shelter-in-Place.
4120 - Professional Services	$549,428.00	$905,750.00	(356,322)	61%	$519,214.74	Under budget due to underspending on Special Projects (see by Program table for additional detail).
4140 - Rents & Fees	$1,017,875.31	$1,105,400.00	(87,525)	92%	$585,585.51	
4141 - NPDES Fines	$0.00	$9,000.00	(9,000)	0%	$0.00	These funds are contingency. No fees were assessed in the fiscal year and none are expected.
4150 - Maintenance & Repair	$667,648.58	$752,500.00	(84,851)	89%	$623,847.70	Member Agency labor at the pump stations was lower due to dry weather and some deferred maintenance activities due to Shelter-in-Place.
4160 - Monitoring	$162,343.91	$170,000.00	(7,656)	95%	$142,408.28	
4170 - Travel	$8,531.65	$18,000.00	(9,468)	47%	$5,803.29	Travel in the second half of the year was curtailed due to Shelter-in-Place.
4190 - Utility, Fixed	$14,528.86	$21,500.00	(6,971)	68%	$18,826.07	Savings due to bundling of phone plans.
4191 - Utility, Variable (PG&E)	$600,462.46	$627,000.00	(26,538)	96%	$545,797.92	
4200 - Acquisitions & Other	$1,446.67	$40,000.00	(38,553)	3.6%	$2,246.25	Under budget due to deferred capital for Skywest.
TOTAL ALL ACCOUNTS	**$4,260,273**	**$5,125,368**	**($865,095)**	**83%**	**$3,665,116**	

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 15, 2020

ITEM NO. FM7 REVIEW OF ANNUAL CERBT FUND AND PENSION VALUATION FOR FISCAL YEAR ENDING JUNE 30, 2020

Recommendation
This report is for the Committee's information only and no action is required.

Background
The Authority participates in the California Public Employees' Retirement System (CalPERS) for its pension benefits. In addition, on April 21, 2011, the EBDA Commission approved an agreement with CalPERS to participate in its California Employers Retiree Benefit Trust (CERBT) Fund to pre-fund other post-employment benefits (OPEB) including retiree health. The fund operates much like the PERS pension fund in that it is designed to increase the value of employer contributions through investment earnings.

Discussion
OPEB
On June 30, 2020, the CERBT Fund balance was $743,415.73. The Authority's CERBT statement is attached for the Committee's review, and key figures are presented in the table below.

CERBT Account Summary as of June 30, 2020	
FY 2019/2020 Beginning Balance	$220,289.79
Contribution	$492,331.00
Total Disbursements	-
Total CERBT Expenses	($238.20)
Total Investment Earnings	$31,033.14
Ending Balance	$743,415.73
Current Asset Allocation Strategy Selection	CERBT Strategy 1
Accrued Liability (through June 30, 2020 per most recent actuarial valuation)	$799,808
Funded Ratio	93%

During FY 2019/2020, the Commission directed that each agency would pre-pay their proportionate share of the Authority's OPEB and pension funds to reach target funding ratios of 80% for OPEB and 95% for pension (per adopted policy). The goal was to pre-fund these retirement obligations to the target ratios under the allocations in the previous JPA, prior to the new JPA allocations taking effect. The Authority accordingly made a lump sum payment of $492,331 for OPEB.

As shown above, based on the Authority's most recent actuarial valuation, the Authority's OPEB liability is 93% funded, exceeding the target. The estimate on which the lump sum was based did not consider investment earnings and assumed a higher accrued liability based on a previous actuarial valuation. As a result, the Authority's OPEB is over-funded relative to the policy target.

The Authority has not yet taken disbursements from its CERBT account. For FY 2019/2020, retiree medical expenses totaled $56,510.78. The Commission previously recommended that the Authority "true up" at the end of each fiscal year to reach the intended funding target, taking into consideration disbursements. Because staff was waiting to see the impact of this year's lump sum payment, the Authority did not take disbursements for FY 2019/2020. In future years, staff recommends reviewing funded status after the third quarter. If without additional payments, the funded ratio is expected to be 80% or higher once disbursements are made, the Authority would request disbursements. If the disbursements would bring the funded ratio under 80%, the Authority would forego the disbursements to avoid collecting funds and then having to make an additional payment to replenish the account.

Pension

Attached is the Authority's recent actuarial valuation for its pension fund from CalPERS. Though the report was received in August, the valuation period is through June 30, 2019 – CalPERS is always one year behind. As such, the valuation does not take into account the $645,000 lump sum additional discretionary payment the Authority made in FY 2019/2020 or recent market fluctuations associated with the economic effects of the pandemic. As noted in the Committee's April 2020 agenda packet, the CalPERS actuarial estimate on which the $645,000 additional discretionary payment was based used an expected investment rate of return of 7.00% from July 1, 2018 to June 30, 2020. However, since the downturn of equity market beginning February 2020, the investment rate of return for FY 2019/2020 was approximately -4.5% to -5.00% fiscal year to date as of March 27, 2020. This equates to a shortfall of $450k-$475k from the previously projected year-end market value. If there is no significant rebound of the equity market, the projected funded status would be around 85%.

If the Commission elects to make an additional discretionary payment (for example, using unspent funds from FY 2019/2020 as discussed in Item No. FM6), staff would seek an updated projection from the CalPERS actuary to estimate the payment needed to reach a desired funding target.

East Bay Dischargers Authority
CERBT Strategy 1
Entity #: SKB0-5860828298
Quarter Ended June 30, 2020

CalPERS

Market Value Summary:

	QTD Current Period	Fiscal Year to Date
Beginning Balance	$199,841.96	$220,289.79
Contribution	492,331.00	492,331.00
Disbursement	0.00	0.00
Transfer In	0.00	0.00
Transfer Out	0.00	0.00
Investment Earnings	51,336.96	31,033.14
Administrative Expenses	(54.41)	(137.62)
Investment Expense	(39.78)	(100.58)
Other	0.00	0.00
Ending Balance	$743,415.73	$743,415.73
FY End Contrib per GASB 74 Para 22	0.00	0.00
FY End Disbursement Accrual	0.00	0.00
Grand Total	$743,415.73	$743,415.73

Unit Value Summary:

	QTD Current Period	Fiscal Year to Date
Beginning Units	13,075.144	13,075.144
Unit Purchases from Contributions	29,562.485	29,562.485
Unit Sales for Withdrawals	0.000	0.000
Unit Transfer In	0.000	0.000
Unit Transfer Out	0.000	0.000
Ending Units	42,637.629	42,637.629
Period Beginning Unit Value	15.284129	16.847987
Period Ending Unit Value	17.435677	17.435677

Please note the Grand Total is your actual fund account balance at the end of the period, including all contributions per GASB 74 paragraph 22 and accrued disbursements. Please review your statement promptly. All information contained in your statement will be considered true and accurate unless you contact us within 30 days of receipt of this statement. If you have questions about the validity of this information, please contact CERBT4U@calpers.ca.gov.

Statement of Transaction Detail for the Quarter Ending 06/30/2020

East Bay Dischargers Authority

Entity #: SKB0-5860828298

Date	Description	Amount	Unit Value	Units	Check/Wire	Notes
05/20/2020	Contribution	$492,331.00	$16.653911	29,562.485	CK 24673	

Client Contact:
CERBT4U@CalPERS.ca.gov

California Public Employees' Retirement System
Actuarial Office
400 Q Street, Sacramento, CA 95811 |Phone: (916) 795-3000 | Fax: (916) 795-2744
888 CalPERS (or **888**-225-7377) | TTY: (877) 249-7442 | **www.calpers.ca.gov**

July 2020

Miscellaneous Plan of the East Bay Dischargers Authority
(CalPERS ID: 5860828298)
Annual Valuation Report as of June 30, 2019

Dear Employer,

Attached to this letter, you will find the June 30, 2019 actuarial valuation report of your CalPERS pension plan. **Provided in this report is the determination of the minimum required employer contributions for fiscal year 2021-22**. In addition, the report contains important information regarding the current financial status of the plan as well as projections and risk measures to aid in planning for the future.

Because this plan is in a risk pool, the following valuation report has been separated into two sections:

- Section 1 contains specific information for the plan including the development of the current and projected employer contributions, and
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to the plan as of June 30, 2019.

Section 2 can be found on the CalPERS website (www.calpers.ca.gov). From the home page, go to "*Forms & Publications*" and select "*View All*". In the search box, enter "*Risk Pool*" and from the results list download the Miscellaneous or Safety Risk Pool Actuarial Valuation Report as appropriate.

Your June 30, 2019 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your assigned CalPERS staff actuary, whose signature appears in the Actuarial Certification section on page 1, is available to discuss the report with you after August 1, 2020.

Actuarial valuations are based on assumptions regarding future plan experience including investment return and payroll growth, eligibility for the types of benefits provided, and longevity among retirees. The CalPERS Board of Administration adopts these assumptions after considering the advice of CalPERS actuarial and investment teams and other professionals. Each actuarial valuation reflects all prior differences between actual and assumed experience and adjusts the contribution rates as needed. This valuation is based on an investment return assumption of 7.0% which was adopted by the board in December 2016. Other assumptions used in this report are those recommended in the CalPERS Experience Study and Review of Actuarial Assumptions report from December 2017.

Required Contribution

The exhibit below displays the minimum employer contributions, before any cost sharing, for fiscal year 2021-22 along with estimates of the required contributions for fiscal year 2022-23. Member contributions other than cost sharing (whether paid by the employer or the employee) are in addition to the results shown below. **The employer contributions in this report do not reflect any cost sharing arrangements you may have with your employees**.

Fiscal Year	Employer Normal Cost Rate	Employer Amortization of Unfunded Accrued Liability
2021-22	12.20%	$21,582
Projected Results		
2022-23	*12.2%*	*$26,000*

The actual investment return for fiscal year 2019-20 was not known at the time this report was prepared. The projections above assume the investment return for that year would be 7.00%. ***To the extent the actual investment return for fiscal year 2019-20 differs from 7.00%, the actual contribution requirements for fiscal year 2022-23 will differ from those shown above.*** For additional details regarding the assumptions and methods used for these projections please refer to the "Projected Employer Contributions" in the "Highlights and Executive Summary" section. This section also contains projected required contributions through fiscal year 2026-27.

Changes from Previous Year's Valuation

The CalPERS Board of Administration has adopted a new amortization policy effective with the June 30, 2019 actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed as a level dollar amount. In addition, the new policy does not utilize a 5-year ramp-up and ramp-down on Unfunded Accrued Liability (UAL) bases attributable to assumption and method changes and non-investment gains/losses. The new policy does not utilize a 5-year ramp-down on investment gains/losses. These changes apply only to new UAL bases established on or after June 30, 2019.

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Actuarial Methods and Assumptions." The effects of the changes on the required contributions are included in the "Reconciliation of Required Employer Contributions" section.

Questions

We understand that you might have some questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after August 1, 2020 to contact us with actuarial questions. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or (**888-225-7377**).

Sincerely,

SCOTT TERANDO
Chief Actuary

Actuarial Valuation
as of June 30, 2019

for the
Miscellaneous Plan
of the
East Bay Dischargers Authority
(CalPERS ID: 5860828298)

Required Contributions
for Fiscal Year
July 1, 2021 - June 30, 2022

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Section 1

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Plan Specific Information for the Miscellaneous Plan of the East Bay Dischargers Authority

(CalPERS ID: 5860828298)
(Valuation Rate Plan ID: 1172)

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Actuarial Certification

Section 1 of this report is based on the member and financial data contained in our records as of June 30, 2019 which was provided by your agency and the benefit provisions under your contract with CalPERS. Section 2 of this report is based on the member and financial data as of June 30, 2019 provided by employers participating in the Miscellaneous Risk Pool to which the plan belongs and benefit provisions under the CalPERS contracts for those agencies.

As set forth in Section 2 of this report, the pool actuaries have certified that, in their opinion, the valuation of the risk pool containing your Miscellaneous Plan has been performed in accordance with generally accepted actuarial principles consistent with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for the risk pool as of the date of this valuation and as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

Having relied upon the information set forth in Section 2 of this report and based on the census and benefit provision information for the plan, it is my opinion as the plan actuary that the Unfunded Accrued Liability amortization bases as of June 30, 2019 and employer contribution as of July 1, 2021 have been properly and accurately determined in accordance with the principles and standards stated above.

The undersigned is an actuary for CalPERS, a member of both the American Academy of Actuaries and Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

EDDIE W. LEE, ASA, EA, FCA, MAAA
Senior Pension Actuary, CalPERS

Highlights and Executive Summary

- **Introduction**
- **Purpose of Section 1**
- **Required Employer Contributions**
- **Additional Discretionary Employer Contributions**
- **Plan's Funded Status**
- **Projected Employer Contributions**
- **Cost**
- **Changes Since the Prior Year's Valuation**
- **Subsequent Events**

Introduction

This report presents the results of the June 30, 2019 actuarial valuation of the Miscellaneous Plan of the East Bay Dischargers Authority of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the required employer contributions for fiscal year 2021-22.

Purpose of Section 1

This Section 1 report for the Miscellaneous Plan of the East Bay Dischargers Authority of CalPERS was prepared by the plan actuary in order to:

- Set forth the assets and accrued liabilities of this plan as of June 30, 2019;
- Determine the minimum required employer contribution for this plan for the fiscal year July 1, 2021 through June 30, 2022; and
- Provide actuarial information as of June 30, 2019 to the CalPERS Board of Administration and other interested parties.

The pension funding information presented in this report should not be used in financial reports subject to GASB Statement No. 68 for a Cost Sharing Employer Defined Benefit Pension Plan. A separate accounting valuation report for such purposes is available from CalPERS and details for ordering are available on our website.

The measurements shown in this actuarial valuation may not be applicable for other purposes. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; changes in actuarial policies; and changes in plan provisions or applicable law.

Assessment and Disclosure of Risk

This report includes the following risk disclosures consistent with the recommendations of Actuarial Standards of Practice No. 51 and recommended by the California Actuarial Advisory Panel (CAAP) in the Model Disclosure Elements document:

- A "Scenario Test," projecting future results under different investment income returns.
- A "Sensitivity Analysis," showing the impact on current valuation results using alternative discount rates of 6.0% and 8.0%.
- A "Sensitivity Analysis," showing the impact on current valuation results assuming rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2017.
- Plan maturity measures indicating how sensitive a plan may be to the risks noted above.

Required Employer Contributions

	Fiscal Year
Required Employer Contributions	**2021-22**
Employer Normal Cost Rate	**12.20%**
Plus, Either	
1) Monthly Employer Dollar UAL Payment	**$1,798.50**
Or	
2) Annual UAL Prepayment Option*	**$20,864**

*The total minimum required employer contribution is the **sum** of the Plan's Employer Normal Cost Rate (expressed as a percentage of payroll) **plus** the Employer Unfunded Accrued Liability (UAL) Contribution Amount (billed monthly in dollars).*

** Only the UAL portion of the employer contribution can be prepaid **(which must be received in full no later than July 31)**. Any prepayment totaling over $5 million requires a 72-hour notice email to FCSD_public_agency_wires@calpers.ca.gov. Plan Normal Cost contributions will be made as part of the payroll reporting process. If there is contractual cost sharing or other change, this amount will change.*

In accordance with Sections 20537 and 20572 of the Public Employees' Retirement Law, if a contracting agency fails to remit the required contributions when due, interest and penalties may apply.

	Fiscal Year 2020-21	Fiscal Year 2021-22
Development of Normal Cost as a Percentage of Payroll[1]		
Base Total Normal Cost for Formula	19.695%	19.55%
Surcharge for Class 1 Benefits[2]		
a) FAC 1	0.619%	0.61%
Phase out of Normal Cost Difference[3]	0.000%	0.00%
Plan's Total Normal Cost	20.314%	20.16%
Formula's Expected Employee Contribution Rate	7.953%	7.96%
Employer Normal Cost Rate	12.361%	12.20%
Projected Payroll for the Contribution Fiscal Year	$405,200	$493,683
Estimated Employer Contributions Based on Projected Payroll		
Plan's Estimated Employer Normal Cost	$50,087	$60,229
Plan's Payment on Amortization Bases[4]	50,334	21,582
% of Projected Payroll (illustrative only)	12.422%	4.37%
Estimated Total Employer Contribution	$100,421	$81,811
% of Projected Payroll (illustrative only)	24.783%	16.57%

[1] The results shown for fiscal year 2020-21 reflect the prior year valuation and may not take into account any lump sum payment, side fund payoff, or rate adjustment made after April 30, 2019.

[2] Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

[3] The normal cost difference is phased out over a five-year period. The phase out of normal cost difference is 100% for the first year of pooling and is incrementally reduced by 20% of the original normal cost difference for each subsequent year. This is non-zero only for plans that joined a pool within the past 5 years. Most plans joined a pool June 30, 2003, when risk pooling was implemented.

[4] See Schedule of Plan's Amortization Bases.

Additional Discretionary Employer Contributions

The minimum required employer contribution towards the Unfunded Accrued Liability (UAL) for this rate plan for the 2021-22 fiscal year is $21,582. CalPERS allows employers to make additional discretionary payments (ADPs) at any time and in any amount. These optional payments serve to reduce the UAL and future required contributions and can result in significant long-term savings. Employers can also use ADPs to stabilize annual contributions as a fixed dollar amount, percent of payroll or percent of revenue.

Provided below are select ADP options for consideration. Making such an ADP during fiscal year 2021-22 does not require an ADP be made in any future year, nor does it change the remaining amortization period of any portion of unfunded liability. For information on permanent changes to amortization periods, see the "Amortization Schedule and Alternatives" section of the report.

If you are considering making an ADP, please contact your actuary for additional information.

Minimum Required Employer Contribution for Fiscal Year 2021-22

Estimated Normal Cost	Minimum UAL Payment	ADP	Total UAL Contribution	Estimated Total Contribution
$60,229	$21,582	$0	$21,582	$81,811

Alternative Fiscal Year 2021-22 Employer Contributions for Greater UAL Reduction

Funding Target	Estimated Normal Cost	Minimum UAL Payment	ADP[1]	Total UAL Contribution	Estimated Total Contribution
20 years	$60,229	$21,582	$5,712	$27,294	$87,523
15 years	$60,229	$21,582	$10,166	$31,748	$91,977
10 years	$60,229	$21,582	$19,587	$41,169	$101,398
5 years	$60,229	$21,582	$48,940	$70,522	$130,751

[1] The ADP amounts are assumed to be made in the middle of the fiscal year. A payment made earlier or later in the fiscal year would have to be less or more than the amount shown to have the same effect on the UAL amortization.

Note that the calculations above are based on the projected Unfunded Accrued Liability as of June 30, 2021 as determined in the June 30, 2019 actuarial valuation. New unfunded liabilities can emerge in future years due to assumption or method changes, changes in plan provisions and actuarial experience different than assumed. Making an ADP illustrated above for the indicated number of years will not result in a plan that is exactly 100% funded in the indicated number of years. Valuation results will vary from one year to the next and can diverge significantly from projections over a period of several years.

Plan's Funded Status

	June 30, 2018	June 30, 2019
1. Present Value of Projected Benefits (PVB)	$5,383,123	$5,590,592
2. Entry Age Normal Accrued Liability (AL)	4,634,973	4,751,432
3. Plan's Market Value of Assets (MVA)	3,784,258	3,827,649
4. Unfunded Accrued Liability (UAL) [(2) - (3)]	850,715	923,783
5. Funded Ratio [(3) / (2)]	81.6%	80.6%

This measure of funded status is an assessment of the need for future employer contributions based on the selected actuarial cost method used to fund the plan. The UAL is the present value of future employer contributions for service that has already been earned and is in addition to future normal cost contributions for active members. For a measure of funded status that is appropriate for assessing the sufficiency of plan assets to cover estimated termination liabilities, please see "Hypothetical Termination Liability" in the "Risk Analysis" section.

Projected Employer Contributions

The table below shows the required and projected employer contributions (before cost sharing) for the next six fiscal years. The projection assumes that all actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur during the projection period. As of the preparation date of this report, the year to date return for the 2019-20 fiscal year was well below the 7% assumed return. Actual contribution rates during this projection period could be significantly higher than the projection shown below.

	Required Contribution	Projected Future Employer Contributions (Assumes 7.00% Return for Fiscal Year 2019-20)				
Fiscal Year	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**
Normal Cost %	12.20%	12.2%	12.2%	12.2%	12.2%	12.2%
UAL Payment	$21,582	$26,000	$30,000	$35,000	$36,000	$37,000

For some sources of UAL, the change in UAL is amortized using a 5-year ramp up. For more information, please see "Amortization of the Unfunded Actuarial Accrued Liability" under "Actuarial Methods" in Appendix A. This method phases in the impact of the change in UAL over a 5-year period in order to reduce employer cost volatility from year to year. As a result of this methodology, dramatic changes in the required employer contributions in any one year are less likely. However, required contributions can change gradually and significantly over the next five years. In years when there is a large increase in UAL, the relatively small amortization payments during the ramp up period could result in a funded ratio that is projected to decrease initially while the contribution impact of the increase in the UAL is phased in.

For projected contributions under alternate investment return scenarios, please see the "Future Investment Return Scenarios" in the "Risk Analysis" section.

Cost

Actuarial Determination of Pension Plan Cost

Contributions to fund the pension plan are comprised of two components:

- The Normal Cost, expressed as a percentage of total active payroll
- The Amortization of the Unfunded Accrued Liability (UAL), expressed as a dollar amount

For fiscal years prior to FY 2016-17, the Amortization of UAL component was expressed as a percentage of total active payroll. Starting with FY 2016-17, the Amortization of UAL component was expressed as a dollar amount and invoiced on a monthly basis. There continues to be an option to prepay this amount during July of each fiscal year.

The Normal Cost component will continue to be expressed as a percentage of active payroll with employer and employee contributions payable as part of the regular payroll reporting process.

The determination of both components requires complex actuarial calculations. The calculations are based on a set of actuarial assumptions which can be divided into two categories:

- Demographic assumptions (e.g., mortality rates, retirement rates, employment termination rates, disability rates)
- Economic assumptions (e.g., future investment earnings, inflation, salary growth rates)

These assumptions reflect CalPERS' best estimate of future experience of the plan and are long term in nature. We recognize that all assumptions will not be realized in any given year. For example, the investment earnings at CalPERS have averaged 5.8% over the 20 years ending June 30, 2019, yet individual fiscal year returns have ranged from -23.6% to +20.7%. In addition, CalPERS reviews all actuarial assumptions by conducting in-depth experience studies every four years, with the most recent experience study completed in 2017.

Changes Since the Prior Year's Valuation

Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation following the effective date of the legislation. Voluntary benefit changes by plan amendment are generally included in the first valuation that is prepared after the amendment becomes effective, even if the valuation date is prior to the effective date of the amendment.

This valuation generally reflects plan changes by amendments effective before the date of the report. Please refer to the "Plan's Major Benefit Options" and Appendix B for a summary of the plan provisions used in this valuation. The effect of any mandated benefit changes or plan amendments on the unfunded liability is shown in the "(Gain)/Loss Analysis" and the effect on the employer contribution is shown in the "Reconciliation of Required Employer Contributions." It should be noted that no change in liability or contribution is shown for any plan changes which were already included in the prior year's valuation.

Actuarial Methods and Assumptions

The CalPERS Board of Administration adopted a new amortization policy effective with this actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed as a level dollar amount. In addition, the new policy does not utilize a 5-year ramp-up and ramp-down on UAL bases attributable to assumption and method changes and non-investment gains/losses. The new policy also does not utilize a 5-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019.

For inactive employers, the new amortization policy imposes a maximum amortization period of 15 years for all unfunded accrued liabilities effective June 30, 2017. Furthermore, the plan actuary has the ability to shorten the amortization period on any valuation date based on the life expectancy of plan members and projected cash flow needs to the plan.

Subsequent Events

The contribution requirements determined in this actuarial valuation report are based on demographic and financial information as of June 30, 2019. Changes in the value of assets subsequent to that date are not reflected. Investment returns below the assumed rate of return will increase future required contributions while investment returns above the assumed rate of return will decrease future required contributions.

The projected employer contributions on Page 6 are calculated under the assumption that the discount rate remains at 7.0% going forward and that the realized rate of return on assets for fiscal year 2019-20 is 7.0%.

This actuarial valuation report reflects statutory changes, regulatory changes and CalPERS Board actions through January 2020. Any subsequent changes or actions are not reflected.

Assets and Liabilities

- **Breakdown of Entry Age Normal Accrued Liability**
- **Allocation of Plan's Share of Pool's Experience/Assumption Change**
- **Development of Plan's Share of Pool's Market Value of Assets**
- **Schedule of Plan's Amortization Bases**
- **Amortization Schedule and Alternatives**
- **Employer Contribution History**
- **Funding History**

Breakdown of Entry Age Normal Accrued Liability

Active Members	$317,963
Transferred Members	0
Terminated Members	0
Members and Beneficiaries Receiving Payments	4,433,469
Total	$4,751,432

Allocation of Plan's Share of Pool's Experience/Assumption Change

It is the policy of CalPERS to ensure equity within the risk pools by allocating the pool's experience gains/losses and assumption changes in a manner that treats each employer equitably and maintains benefit security for the members of the System while minimizing substantial variations in employer contributions. The Pool's experience gains/losses and impact of assumption/method changes is allocated to the plan as follows:

1.	Plan's Accrued Liability	$4,751,432
2.	Projected UAL balance at 6/30/2019	886,648
3.	Pool's Accrued Liability[1]	18,394,114,919
4.	Sum of Pool's Individual Plan UAL Balances at 6/30/2019[1]	4,268,374,183
5.	Pool's 2018/19 Investment (Gain)/Loss[1]	68,711,010
6.	Pool's 2018/19 Non-Investment (Gain)/Loss[1]	70,985,020
7.	Plan's Share of Pool's Investment (Gain)/Loss: [(1) - (2)] ÷ [(3) - (4)] × (5)	18,799
8.	Plan's Share of Pool's Non-Investment (Gain)/Loss: (1) ÷ (3) × (6)	18,336
9.	Plan's New (Gain)/Loss as of 6/30/2019: (7) + (8)	37,136
10.	Other Changes in the UAL[2]	0

[1] Does not include plans that transferred to Pool on the valuation date.

[2] May include Golden Handshakes, Service Purchases, etc. See Schedule of Plan's Amortization Bases for details.

Development of the Plan's Share of Pool's Market Value of Assets

11.	Plan's UAL: (2) + (9) + (10)	$923,783
12.	Plan's Share of Pool's MVA: (1) - (11)	$3,827,649

Schedule of Plan's Amortization Bases

Note that there is a two-year lag between the valuation date and the start of the contribution fiscal year.

- The assets, liabilities, and funded status of the plan are measured as of the valuation date: June 30, 2019.
- The required employer contributions determined by the valuation are for the fiscal year beginning two years after the valuation date: fiscal year 2021-22.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and the need to provide public agencies with their required employer contribution well in advance of the start of the fiscal year.

The Unfunded Accrued Liability (UAL) is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The UAL is rolled forward each year by subtracting the expected payment on the UAL for the fiscal year and adjusting for interest. The expected payment on the UAL for a fiscal year is equal to the Expected Employer Contribution for the fiscal year minus the Expected Normal Cost for the year. The Employer Contribution for the first fiscal year is determined by the actuarial valuation two years ago and the contribution for the second year is from the actuarial valuation one year ago. Additional discretionary payments are reflected in the Expected Payments column in the fiscal year they were made by the agency.

Reason for Base	Date Est.	Ramp Level 2021-22	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/19	Expected Payment 2019-20	Balance 6/30/20	Expected Payment 2020-21	Balance 6/30/21	Minimum Required Payment 2021-22
Share of Pre-2013 Pool UAL	6/30/13	No Ramp		2.75%	12	447,441	42,888	434,398	43,578	419,728	44,776
Non-Investment (Gain)/Loss	6/30/13	100%	Up/Down	2.75%	24	(4,339)	(291)	(4,342)	(295)	(4,341)	(303)
Investment (Gain)/Loss	6/30/13	100%	Up/Down	2.75%	24	531,615	262,793	296,993	20,147	296,942	20,701
Non-Investment (Gain)/Loss	6/30/14	100%	Up/Down	2.75%	1	390	404	0	0	0	0
Investment (Gain)/Loss	6/30/14	100%	Up/Down	2.75%	25	(382,229)	(20,290)	(387,997)	(25,657)	(388,617)	(26,363)
Side Fund	2013 or Prior	No Ramp		2.75%	10	(431,891)	(46,501)	(414,022)	(47,290)	(394,086)	(48,591)
Assumption Change	6/30/14	100%	Up/Down	2.75%	15	217,883	16,205	216,372	20,575	210,235	21,140
Non-Investment (Gain)/Loss	6/30/15	100%	Up/Down	2.75%	26	(17,513)	(699)	(18,016)	(942)	(18,303)	(1,210)
Investment (Gain)/Loss	6/30/15	100%	Up/Down	2.75%	1	229,643	237,545	0	0	0	0
Non-Investment (Gain)/Loss	6/30/16	80%	Up/Down	2.75%	27	(30,722)	(830)	(32,014)	(1,258)	(32,954)	(1,724)
Investment (Gain)/Loss	6/30/16	80%	Up/Down	2.75%	1	155,244	160,586	0	0	0	0
Assumption Change	6/30/16	80%	Up/Down	2.75%	17	75,983	2,805	78,400	4,268	79,473	5,848
Non-Investment (Gain)/Loss	6/30/17	60%	Up/Down	2.75%	28	(6,245)	(87)	(6,592)	(175)	(6,872)	(270)
Investment (Gain)/Loss	6/30/17	60%	Up/Down	2.75%	28	(129,249)	(1,796)	(136,439)	(3,627)	(142,238)	(5,590)
Assumption Change	6/30/17	60%	Up/Down	2.75%	18	84,620	1,598	88,890	3,241	91,760	4,996
Non-Investment (Gain)/Loss	6/30/18	40%	Up/Down	2.75%	1	18,863	19,512	0	0	0	0
Investment (Gain)/Loss	6/30/18	40%	Up/Down	2.75%	29	(41,665)	0	(44,582)	(609)	(47,073)	(1,251)
Assumption Change	6/30/18	40%	Up/Down	2.75%	19	131,923	(2,708)	143,959	2,684	151,260	5,516

Schedule of Plan's Amortization Bases (continued)

Reason for Base	Date Est.	Ramp Level 2021-22	Ramp Shape	Escala-tion Rate	Amort. Period	Balance 6/30/19	Expected Payment 2019-20	Balance 6/30/20	Expected Payment 2020-21	Balance 6/30/21	Minimum Required Payment 2021-22
Method Change	6/30/18	40%	Up/Down	2.75%	19	36,896	(179)	39,664	740	41,675	1,520
Non-Investment (Gain)/Loss	6/30/19	No Ramp		0.00%	20	18,336	0	19,620	0	20,993	1,916
Investment (Gain)/Loss	6/30/19	20%	Up Only	0.00%	20	18,799	0	20,115	0	21,523	471
Total						**923,783**	**670,955**	**294,407**	**15,380**	**299,105**	**21,582**

The (gain)/loss bases are the plan's allocated share of the risk pool's (gain)/loss for the fiscal year as disclosed in "Allocation of Plan's Share of Pool's Experience/Assumption Change" earlier in this section. These (gain)/loss bases will be amortized in accordance with the CalPERS amortization policy in effect at the time the base was established.

Amortization Schedule and Alternatives

The amortization schedule on the previous page shows the minimum contributions required according to the CalPERS amortization policy. Many agencies have expressed interest in paying off the unfunded accrued liabilities more quickly than required. As such, we have provided alternative amortization schedules to help analyze the current amortization schedule and illustrate the potential savings of accelerating unfunded liability payments.

Shown on the following page are future year amortization payments based on 1) the current amortization schedule reflecting the individual bases and remaining periods shown on the previous page, and 2) alternative "fresh start" amortization schedules using two sample periods that would both result in interest savings relative to the current amortization schedule.

The Current Amortization Schedule typically contains both positive and negative bases. Positive bases result from plan changes, assumption changes, method changes or plan experience that increase unfunded liability. Negative bases result from plan changes, assumption changes, method changes, or plan experience that decrease unfunded liability. The combination of positive and negative bases within an amortization schedule can result in unusual or problematic circumstances in future years, such as:

- When a negative payment would be required on a positive unfunded actuarial liability; or
- When the payment would completely amortize the total unfunded liability in a very short time period, and results in a large change in the employer contribution requirement.

In any year when one of the above scenarios occurs, the actuary will consider corrective action such as replacing the existing unfunded liability bases with a single "fresh start" base and amortizing it over a reasonable period.

The Current Amortization Schedule on the following page may appear to show that, based on the current amortization bases, one of the above scenarios will occur at some point in the future. It is impossible to know today whether such a scenario will in fact arise since there will be additional bases added to the amortization schedule in each future year. Should such a scenario arise in any future year, the actuary will take appropriate action based on guidelines in the CalPERS amortization policy.

Amortization Schedule and Alternatives

	Current Amortization Schedule		Alternate Schedules			
			10 Year Amortization		5 Year Amortization	
Date	**Balance**	**Payment**	**Balance**	**Payment**	**Balance**	**Payment**
6/30/2021	299,105	21,582	299,105	41,169	299,105	70,522
6/30/2022	297,718	26,314	277,457	41,169	247,094	70,523
6/30/2023	291,340	30,182	254,293	41,169	191,441	70,522
6/30/2024	280,514	34,527	229,508	41,169	131,893	70,522
6/30/2025	264,435	35,845	202,988	41,169	68,177	70,523
6/30/2026	245,866	36,711	174,612	41,170		
6/30/2027	225,103	37,603	144,248	41,170		
6/30/2028	201,964	38,521	111,759	41,169		
6/30/2029	176,255	39,463	76,997	41,170		
6/30/2030	147,773	40,430	39,800	41,169		
6/30/2031	116,294	105,158				
6/30/2032	15,658	16,197				
6/30/2033						
6/30/2034						
6/30/2035						
6/30/2036						
6/30/2037						
6/30/2038						
6/30/2039						
6/30/2040						
6/30/2041						
6/30/2042						
6/30/2043						
6/30/2044						
6/30/2045						
6/30/2046						
6/30/2047						
6/30/2048						
6/30/2049						
6/30/2050						
Total	**462,533**		**411,693**		**352,612**	
Interest Paid	**163,428**		**112,588**		**53,507**	
Estimated Savings			**50,840**		**109,921**	

Employer Contribution History

The table below provides a recent history of the required employer contributions for the plan, as determined by the annual actuarial valuation. It does not account for prepayments or benefit changes made during a fiscal year.

Fiscal Year	Employer Normal Cost	Unfunded Liability Payment ($)
2016 - 17	10.069%	$13,053
2017 - 18	10.110%	21,947
2018 - 19	10.609%	30,942
2019 - 20	11.432%	44,901
2020 - 21	12.361%	50,334
2021 - 22	12.20%	21,582

Funding History

The funding history below shows the plan's actuarial accrued liability, share of the pool's market value of assets, share of the pool's unfunded liability, funded ratio, and annual covered payroll.

Valuation Date	Accrued Liability (AL)	Share of Pool's Market Value of Assets (MVA)	Plan's Share of Pool's Unfunded Liability	Funded Ratio	Annual Covered Payroll
06/30/2011	$3,176,316	$2,789,638	$386,678	87.8%	$365,500
06/30/2012	3,329,338	2,730,187	599,151	82.0%	373,134
06/30/2013	3,494,779	3,009,248	485,531	86.1%	376,164
06/30/2014	3,806,425	3,407,986	398,439	89.5%	376,707
06/30/2015	3,898,690	3,303,082	595,608	84.7%	393,594
06/30/2016	3,918,330	3,134,508	783,822	80.0%	377,034
06/30/2017	4,064,725	3,286,636	778,089	80.9%	509,484
06/30/2018	4,634,973	3,784,258	850,715	81.6%	373,529
06/30/2019	4,751,432	3,827,649	923,783	80.6%	455,096

Risk Analysis

- **Future Investment Return Scenarios**
- **Discount Rate Sensitivity**
- **Mortality Rate Sensitivity**
- **Maturity Measures**
- **Maturity Measures History**
- **Hypothetical Termination Liability**

Future Investment Return Scenarios

Analysis was performed to determine the effects of various future investment returns on required employer contributions. The projections below provide a range of results based on five investment return scenarios assumed to occur during the next four fiscal years (2019-20, 2020-21, 2021-22 and 2022-23). The projections also assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

For fiscal years 2019-20, 2020-21, 2021-22, and 2022-23, each scenario assumes an alternate fixed annual return. The fixed return assumptions for the five scenarios are 1.0%, 4.0%, 7.0%, 9.0% and 12.0%.

These alternate investment returns were chosen based on stochastic analysis of possible future investment returns over the four-year period ending June 30, 2023. Using the expected returns and volatility of the asset classes in which the funds are invested, we produced five thousand stochastic outcomes for this period based on the most recently completed Asset Liability Management process. We then selected annual returns that approximate the 5th, 25th, 50th, 75th, and 95th percentiles for these outcomes. For example, of all the 4-year outcomes generated in the stochastic analysis, approximately 25% had an average annual return of 4.0% or less.

Required contributions outside of this range are also possible. In particular, whereas it is unlikely that investment returns will average less than 1.0% or greater than 12.0% over this four-year period, the likelihood of a single investment return less than 1.0% or greater than 12.0% in any given year is much greater.

Assumed Annual Return From 2019-20 through 2022-23	Projected Employer Contributions			
	2022-23	2023-24	2024-25	2025-26
1.0%				
Normal Cost	12.2%	12.2%	12.2%	12.2%
UAL Contribution	$32,000	$47,000	$69,000	$94,000
4.0%				
Normal Cost	12.2%	12.2%	12.2%	12.2%
UAL Contribution	$29,000	$39,000	$52,000	$66,000
7.0%				
Normal Cost	12.2%	12.2%	12.2%	12.2%
UAL Contribution	$26,000	$30,000	$35,000	$36,000
9.0%				
Normal Cost	12.5%	12.7%	13.0%	13.2%
UAL Contribution	$25,000	$27,000	$27,000	$23,000
12.0%				
Normal Cost	12.5%	12.7%	13.0%	13.2%
UAL Contribution	$22,000	$0	$0	$0

These projections reflect the impact of the CalPERS risk mitigation policy, which reduces the discount rate when investment returns exceed specified trigger points.

Discount Rate Sensitivity

The discount rate assumption is calculated as the sum of the assumed real rate of return and the assumed annual price inflation, currently 4.50% and 2.50%, respectively. Changing either the price inflation assumption or the real rate of return assumption will change the discount rate. The sensitivity of the valuation results to the discount rate assumption depends on which component of the discount rate is changed. Shown below are various valuation results as of June 30, 2019 assuming alternate discount rates by changing the two components independently. Results are shown using the current discount rate of 7.0% as well as alternate discount rates of 6.0% and 8.0%. The rates of 6.0% and 8.0% were selected since they illustrate the impact of a 1.0% increase or decrease to the 7.0% assumption.

Sensitivity to the Real Rate of Return Assumption

As of June 30, 2019	1% Lower Real Return Rate	Current Assumptions	1% Higher Real Return Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	2.5%	2.5%	2.5%
Real Rate of Return	**3.5%**	**4.5%**	**5.5%**
a) Total Normal Cost	25.21%	20.16%	16.30%
b) Accrued Liability	$5,262,340	$4,751,432	$4,319,948
c) Market Value of Assets	$3,827,649	$3,827,649	$3,827,649
d) Unfunded Liability/(Surplus) [(b) - (c)]	$1,434,691	$923,783	$492,299
e) Funded Status	72.7%	80.6%	88.6%

Sensitivity to the Price Inflation Assumption

As of June 30, 2019	1% Lower Inflation Rate	Current Assumptions	1% Higher Inflation Rate
Discount Rate	**6.0%**	**7.0%**	**8.0%**
Inflation	**1.5%**	**2.5%**	**3.5%**
Real Rate of Return	4.5%	4.5%	4.5%
a) Total Normal Cost	21.53%	20.16%	18.56%
b) Accrued Liability	$4,983,891	$4,751,432	$4,430,498
c) Market Value of Assets	$3,827,649	$3,827,649	$3,827,649
d) Unfunded Liability/(Surplus) [(b) - (c)]	$1,156,242	$923,783	$602,849
e) Funded Status	76.8%	80.6%	86.4%

Mortality Rate Sensitivity

The following table looks at the change in the June 30, 2019 plan costs and funded ratio under two different longevity scenarios, namely assuming post-retirement rates of mortality are 10% lower or 10% higher than our current mortality assumptions adopted in 2017. This type of analysis highlights the impact on the plan of improving or worsening mortality over the long-term.

As of June 30, 2019	10% Lower Mortality Rates	Current Assumptions	10% Higher Mortality Rates
a) Total Normal Cost	20.50%	20.16%	19.85%
b) Accrued Liability	$4,854,792	$4,751,432	$4,657,003
c) Market Value of Assets	$3,827,649	$3,827,649	$3,827,649
d) Unfunded Liability/(Surplus) [(b) - (c)]	$1,027,143	$923,783	$829,354
e) Funded Status	78.8%	80.6%	82.2%

Maturity Measures

As pension plans mature they become more sensitive to risks. Understanding plan maturity and how it affects the ability of a pension plan to tolerate risk is important in understanding how the plan is impacted by investment return volatility, other economic variables and changes in longevity or other demographic assumptions. One way to look at the maturity level of CalPERS and its plans is to look at the ratio of a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio starts increasing. A mature plan will often have a ratio above 60%-65%.

Ratio of Retiree Accrued Liability to Total Accrued Liability	**June 30, 2018**	**June 30, 2019**
1. Retired Accrued Liability	4,335,737	4,433,469
2. Total Accrued Liability	4,634,973	4,751,432
3. Ratio of Retiree AL to Total AL [(1) / (2)]	0.94	0.93

Another measure of maturity level of CalPERS and its plans is to look at the ratio of actives to retirees, also called the Support Ratio. A pension plan in its infancy will have a very high ratio of active to retired members. As the plan matures, and members retire, the ratio starts declining. A mature plan will often have a ratio near or below one. The average support ratio for CalPERS public agency plans is 1.25.

Support Ratio	**June 30, 2018**	**June 30, 2019**
1. Number of Actives	3	3
2. Number of Retirees	14	14
3. Support Ratio [(1) / (2)]	0.21	0.21

Maturity Measures (Continued)

The actuarial calculations supplied in this communication are based on various assumptions about long-term demographic and economic behavior. Unless these assumptions (e.g., terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise required employer contributions from one year to the next. Therefore, employer contributions will inevitably fluctuate, especially due to the ups and downs of investment returns.

Asset Volatility Ratio (AVR)

Shown in the table below is the asset volatility ratio (AVR), which is the ratio of market value of assets to payroll. Plans that have higher AVR experience more volatile employer contributions (as a percentage of payroll) due to investment return. For example, a plan with an asset-to-payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility than a plan with an asset-to-payroll ratio of 4. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures.

Liability Volatility Ratio (LVR)

Also shown in the table below is the liability volatility ratio (LVR), which is the ratio of accrued liability to payroll. Plans that have a higher LVR experience more volatile employer contributions (as a percentage of payroll) due to investment return and changes in liability. For example, a plan with LVR ratio of 8 is expected to have twice the contribution volatility of a plan with LVR of 4. It should be noted that this ratio indicates a longer-term potential for contribution volatility. The AVR, described above, will tend to move closer to the LVR as a plan matures.

Contribution Volatility	June 30, 2018	June 30, 2019
1. Market Value of Assets	$3,784,258	$3,827,649
2. Payroll	373,529	455,096
3. Asset Volatility Ratio (AVR) [(1) / (2)]	10.1	8.4
4. Accrued Liability	$4,634,973	$4,751,432
5. Liability Volatility Ratio (LVR) [(4) / (2)]	12.4	10.4

Maturity Measures History

Valuation Date	Ratio of Retiree Accrued Liability to Total Accrued Liability	Support Ratio	Asset Volatility Ratio	Liability Volatility Ratio
06/30/2017	0.83	0.33	6.5	8.0
06/30/2018	0.94	0.21	10.1	12.4
06/30/2019	0.93	0.21	8.4	10.4

Hypothetical Termination Liability

The hypothetical termination liability is an estimate of the financial position of the plan had the contract with CalPERS been terminated as of June 30, 2019. The plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. For the hypothetical termination liability calculation, both compensation and service are frozen as of the valuation date and no future pay increases or service accruals are assumed. This measure of funded status is not appropriate for assessing the need for future employer contributions in the case of an ongoing plan, that is, for an employer that continues to provide CalPERS retirement benefits to active employees.

A more conservative investment policy and asset allocation strategy was adopted by the CalPERS Board for the Terminated Agency Pool. The Terminated Agency Pool has limited funding sources since no future employer contributions will be made. Therefore, expected benefit payments are secured by risk-free assets and benefit security for members is increased while limiting the funding risk. However, this asset allocation has a lower expected rate of return than the PERF and consequently, a lower discount rate is assumed. The lower discount rate for the Terminated Agency Pool results in higher liabilities for terminated plans.

The effective termination discount rate will depend on actual market rates of return for risk-free securities on the date of termination. As market discount rates are variable, the table below shows a range for the hypothetical termination liability based on the lowest and highest interest rates observed during an approximate 19-month period from 12 months before the valuation date to 7 months after.

Market Value of Assets (MVA)	Hypothetical Termination Liability[1,2] @ 1.75%	Funded Status	Unfunded Termination Liability @ 1.75%	Hypothetical Termination Liability[1,2] @ 3.25%	Funded Status	Unfunded Termination Liability @ 3.25%
$3,827,649	$8,890,530	43.1%	$5,062,881	$7,470,565	51.2%	$3,642,916

[1] The hypothetical liabilities calculated above include a 5% mortality contingency load in accordance with Board policy. Other actuarial assumptions can be found in Appendix A of the Section 2 report.

[2] The current discount rate assumption used for termination valuations is a weighted average of the 10-year and 30-year U.S. Treasury yields where the weights are based on matching asset and liability durations as of the termination date. The discount rates used in the table are based on 20-year Treasury bonds, rounded to the nearest quarter percentage point, which is a good proxy for most plans. The 20-year Treasury yield was 2.31% on June 30, 2019, and was 1.83% on January 31, 2020.

In order to terminate the plan, you must first contact our Retirement Services Contract Unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow the plan actuary to give you a preliminary termination valuation with a more up-to-date estimate of the plan liabilities. CalPERS advises you to consult with the plan actuary before beginning this process.

Participant Data

The table below shows a summary of your plan's member data upon which this valuation is based:

	June 30, 2018	June 30, 2019
Reported Payroll	$373,529	$455,096
Projected Payroll for Contribution Purposes	$405,200	$493,683
Number of Members		
Active	3	3
Transferred	1	0
Separated	0	0
Retired	14	14

List of Class 1 Benefit Provisions

This plan has the additional Class 1 Benefit Provisions:

- One Year Final Compensation (FAC 1)

Plan's Major Benefit Options

Shown below is a summary of the major optional benefits for which your agency has contracted. A description of principal standard and optional plan provisions is in Section 2.

	Benefit Group			
Member Category	Misc	Misc	Misc	
Demographics				
Actives	No	Yes	No	
Transfers/Separated	No	No	No	
Receiving	Yes	Yes	Yes	
Benefit Provision				
Benefit Formula		2.5% @ 55		
Social Security Coverage		No		
Full/Modified		Full		
Employee Contribution Rate		8.00%		
Final Average Compensation Period		One Year		
Sick Leave Credit		Yes		
Non-Industrial Disability		Standard		
Industrial Disability		No		
Pre-Retirement Death Benefits				
Optional Settlement 2		Yes		
1959 Survivor Benefit Level		No		
Special		No		
Alternate (firefighters)		No		
Post-Retirement Death Benefits				
Lump Sum	$500	$500	$500	
Survivor Allowance (PRSA)	No	No	No	
COLA	2%	2%	2%	

Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Risk Pool Actuarial Valuation Information

Section 2 may be found on the CalPERS website (www.calpers.ca.gov) in the Forms and Publications section

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 15, 2020

ITEM NO. FM8 BANKING ALTERNATIVES

Recommendation
This report is for the Committee's information only; no action is required.

Background
The Committee requested that staff research opportunities for switching from Wells Fargo's banking services to a more local financial institution, with a goal of keeping the Authority's financial resources in the community. This report presents the findings of staff's inquiries.

Discussion
Staff surveyed four banks and two credit unions within a five-mile radius of the Authority. The following services were evaluated: treasury management, fraud prevention, and in-branch and online access.

1st United and Patelco Credit Unions both offer basic checking accounts without many additional features or options. The business checking programs are geared toward small businesses and do not offer treasury management or fraud prevention services. Staff does not recommend using an institution that does not offer fraud prevention services. Just weeks after the Authority began implementing Wells Fargo's fraud services, a counterfeit check was presented to Wells Fargo. Thanks to the fraud prevention program, the Authority did not incur the $4,800 loss.

Bank of the West, Fremont Bank, Union Bank, and Comerica Bank all offer similar services to what the Authority currently has with Wells Fargo, including treasury management and fraud prevention (e.g. Positive Pay and ACH preauthorization). None of these banks provided any additional features that are not available from the Authority's current bank.

The COVID-19 pandemic has clearly impacted the responsiveness of financial institutions to new business inquiries. Bank of the West, Union Bank, and Comerica provided delayed or no response to Authority staff's requests for information, raising concerns about their customer service. While Fremont Bank initially was not responsive, after being alerted to the Authority's concerns, they apologized for their initial lapses and have been very responsive since that time. Authority staff is working with Fremont Bank staff to better understand their fee structure. The fact that they are a local bank whose money is invested locally is consistent with the Commission's expressed goals.

Staff's recommendation at this time is to stay with Wells Fargo for another six months, and to continue discussions with Fremont Bank in that interim. Authority staff has been happy with Wells Fargo's services. The Relationship Manager and team are responsive and knowledgeable. Therefore, the reason to switch to another institution would be to invest locally if the fee schedule is comparable. EBDA's checking accounts were recently

converted to Wells Fargo's treasury management services. The conversion and subsequent implementation has gone well, but it is still new. Over the next six months, staff expects to have a better understanding of the long-term fee structure as well as pros and cons of Wells Fargo's business platform. Staff will be in a better position in six months to do a true comparison of Fremont Bank's fees and services to Wells Fargo's. Staff will return to the Committee at that time with an updated recommendation.

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 15, 2020

ITEM NO. FM9 LAVWMA NEGOTIATION UPDATE

Recommendation
This report is for the Committee's information only; no action is required.

Background
EBDA entered into a Master Agreement with the Livermore Amador Valley Water Management Agency (LAVWMA) in April 2007 (the "Agreement"). The Agreement allows LAVWMA to discharge through EBDA's system and lays out the conditions for such discharge. The Agreement was set to expire on January 1, 2020 concurrent with the expiration of the EBDA Joint Powers Agreement (JPA). On October 18, 2019, the Commission adopted Resolution 19-38, extending the LAVWMA Master Agreement for up to six months, through June 30, 2020 to allow time for negotiation of a new amendment or agreement. In June 2020, the Commission adopted Resolution 20-13, extending the agreement a second time through January 1, 2021, with the stipulation that a price premium may take effect on October 1, 2020 to incentivize expedited negotiations.

Discussion
At its April 2020 meeting, the Committee reviewed a draft Term Sheet for the new agreement, which was provided to LAVWMA staff. LAVWMA responded on July 2, 2020 with counter points on the Term Sheet as well as an analysis contending that LAVWMA owns a fixed 10.43% of the EBDA system. EBDA disagrees with this assertion, and EBDA's legal counsel drafted a response to the ownership analysis countering LAVWMA's arguments, which was delivered to LAVWMA on July 31, 2020. On August 25, 2020, LAVWMA's legal counsel provided a response to EBDA's memo, and the two legal counsels conferred on the issue on August 28, 2020.

At the Financial Management Committee meeting, staff will provide updates on the status of negotiations, including next steps on the ownership issue as well as other issues addressed in the Term Sheet.

EBDA

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2651 Grant Avenue
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A Joint Powers Public Agency

Pursuant to the Governor's Executive Order N-25-20 the Regulatory Affairs Committee meeting scheduled for September 16, 2020 at 9:00 a.m. will be telephonic. The dial-in number for the meeting is +1 669 900 6833 with meeting I.D. #845 2357 7926. Members of the public are encouraged to dial-in to the meeting using the same number. https://us02web.zoom.us/j/84523577926

ITEM NO. 12

REGULATORY AFFAIRS COMMITTEE AGENDA

Wednesday, September 16, 2020
9:00 a.m.

East Bay Dischargers Authority
2651 Grant Avenue, San Lorenzo, CA 94580

Committee Members: Johnson (Chair); Lamnin

RA1. Call to Order

RA2. Roll Call

RA3. Public Forum

RA4. EBDA NPDES Performance – See Item OM4
(The Committee will review NPDES Permit compliance data.)

RA5. Reporting Checklist
(The Committee will review a checklist of completed regulatory reporting items.)

RA6. Nature-Based Solutions Update
(The General Manager will report on multi-benefit shoreline projects.)

RA7. Recycled Water in the San Francisco Bay Region
(The Committee will review a report by the San Francisco Regional Water Quality Control Board.)

RA8. BACWA Key Regulatory Issue Summary
(The Committee will review BACWA's issue summary.)

RA9. Motion Authorizing the General Manager to Execute a Work Order with Larry Walker Associates for a Dilution Study Related to Acceptance of Cargill Mixed Sea Salt Brine for Discharge at the EBDA Outfall in the Amount of $56,617
(The Committee will consider the motion.)

RA10. Adjournment

Agenda Explanation
East Bay Dischargers Authority
Regulatory Affairs Agenda
September 16, 2020

(Any member of the public may address the Commission at the commencement of the meeting on any matter within the jurisdiction of the Commission. This should not relate to any item on the agenda. It is the policy of the Authority that each person addressing the Commission limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Commission on an agenda item should do so at the time the item is considered. It is the policy of the Authority that oral comments be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available in the Boardroom and are to be completed prior to speaking.)

(In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in an Authority meeting, or you need a copy of the agenda, or the agenda packet, in an appropriate alternative format, please contact the Administrative Assistant at the EBDA office at (510) 278-5910 or juanita@ebda.org. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.)

(In compliance with SB 343. related writings of open session items are available for public inspection at East Bay Dischargers Authority, 2651 Grant Avenue, San Lorenzo, CA 94580. For your convenience, agenda items are posted on the East Bay Dischargers Authority website located at http://www.ebda.org.)

The next Regulatory Affairs Committee meeting is scheduled for Wednesday, November 18, 2020 at 9:00 a.m.

ITEM NO. RA4 EBDA NPDES PERFORMANCE – NPDES PERMIT

Please see the Operations and Maintenance Committee agenda, Item No. OM4 for permit compliance data.

ITEM NO. RA5 REPORTING CHECKLIST

Recommendation
For the Committee's information only; no action is required.

Background
Authority staff maintains a checklist of all regulatory reporting and related tasks to ensure timely and complete reporting.

Discussion
The following checklist is extracted from a complete list of routine regulatory activities addressed throughout the year. The following items were completed during the period of March 1 – August 31, 2020; there are no outstanding activities.

Regulatory Authority	*Required Action*	*Occurrence*	*Date Submitte*
Bureau of Automotive Repairs	Smog 2008 Ford Ranger in even years	Biennial	3/5/2020
Bureau of Automotive Repairs	Annual reporting transmittal 2008 Ford Ranger	Annual	3/12/2020
Fair Political Practices Commission	*Statement of Economic Interests, Form 700* filing with Alameda County	Annual	3/31/2020
Alliant Insurance Services, Inc	Public Official Bond Renewal - HC	Annual	4/16/2020
Bay Area Air Quality Management District	Pay renewal fee for *Permit to Operate* Plant #13187	Biennial	4/16/2020
State Controller	Government Compensation in CA Report	Annual	4/20/2020
State Water Resources Control Board	Influent and Recycled Water Volumetric Reporting	Annual	4/23/2020
State Water Resources Control Board	NPDES Quarterly (Jan-Mar) Reports	Quarterly	4/30/2020
Bay Area Air Quality Management District	Complete *Data Update* form Plant #14531	Annual	5/11/2020
Bay Area Air Quality Management District	Renew *Permit to Operate* Plant #14531	Annual	5/11/2020
Bay Area Air Quality Management District	Renew *Permit to Operate* Plant #13187	Biennial	5/19/2020
ADP Business Payroll	Print Payroll Quarter-End Tax Returns	Quarterly	5/22/2020
Alliant Insurance Services, Inc	Auto Physical Damage Insurance Renewal	Annual	5/22/2020
Alliant Insurance Services, Inc	CSRMA Property Insurance Program Renewal	Annual	5/27/2020
State Compensation Insurance Fund	Workers' Compensation Insurance Renewal	Annual	5/28/2020
Regional Monitoring Program % SFEI	4th Quarter Partipant fee (billed annually in October)	Quarterly	6/15/2020
State Compensation Insurance Fund	Payroll Report, Semi-Annual Jan 01 - Jul 01	Semi-Annual	6/30/2020
County of Alameda, Clerk/Recorder	Statement of Facts/Roster of Public Agencies Filing (FY changes to Commission)	Annual	7/3/2020
Secretary of State	Statement of Facts/Roster of Public Agencies Filing (FY changes to Commission)	Annual	7/3/2020
State of California Govt Code 53065.5	Annual Posting Reimbursement Report over $100 to EBDA Website	Annual	7/4/2020
Local Agency Formation Commission	File JPA Amendments within 30 days after the effective date per SB 1266.		7/15/2020
Bay Area Air Quality Management District	Pay renewal fee for *Permit to Operate* Plant #14531	Annual	7/15/2020
CalPERS	Post Commission approved Compensation Plan to EBDA website	Annual	7/20/2020
Department of Toxic Substances Control	EPA ID Number (CAL000072039) Verification	Annual	7/29/2020
State Water Resources Control Board	NPDES Quarterly (Apr-Jun) Reports	Quarterly	7/30/2020
State Water Resources Control Board	NPDES Semi-Annual (Jan-Jun) Reports	Semi-Annual	7/30/2020
CalPERS	SSA Annual Information Request	Annual	8/5/2020
Bay Area Air Quality Management District	TRANSFER OWNERSHIP - Plant #14530	Annual	8/7/2020
Bureau of Labor Statistics	Report monthly employment figures	Monthly	8/12/2020
ADP Business Payroll	Print Payroll Quarter-End Tax Returns	Quarterly	8/21/2020
Regional Water Quality Control Board	Recycled Water monthly reports	Monthly	8/28/2020
State Water Resources Control Board	NPDES monthly reports	Monthly	8/28/2020
System for Award Management	Annual Renewal	Annual	8/28/2020

ITEM NO. RA6 NATURE-BASED SOLUTIONS UPDATE

Recommendation
For the Committee's information only; no action is required.

Background
Wetlands, horizontal levees, and other "Nature-Based Solutions" (NBS) have the potential to provide multiple benefits including water quality improvement through reduction of nutrients and contaminants of emerging concern, creation or restoration of habitat, and protection from sea level rise.

Discussion
Because NBS have such great potential to provide multiple benefits to ecosystems and communities at lower cost than conventional technologies, a number of projects are moving forward in parallel to identify specific NBS opportunities and advance the concepts toward implementation. In this report, staff will provide updates on several of these ongoing efforts.

HASPA Shoreline Master Plan
The Hayward Area Shoreline Planning Agency (HASPA) is currently in the process of developing a Shoreline Master Plan for the area between Highway 92 and Bockman Canal. EBDA staff has been working closely with the HASPA team. Design alternatives were identified, and a preferred alternative is being developed. Each HASPA design alternative included features planned as part of the Transforming Shorelines project described in the next section. Specifically, the Master Plan includes a horizontal levee south of Bockman Canal consistent with the First Mile project, as well as nature-based features at the oxidation ponds in Hayward. The HASPA process has been a helpful head start for these two projects, as the HASPA team has consulted with key stakeholders including resource agency staff to inform the proposed solutions. Staff is continuing to coordinate with HASPA's consultants and with East Bay Regional Park District (EBRPD) staff as the Master Plan nears completion.

Transforming Shorelines
The Transforming Shorelines Project, led by San Francisco Estuary Partnership (SFEP), contains a number of components aimed at advancing NBS at wastewater treatment plants. Elements include:

- Establishment of the Transforming Shorelines Collaborative, a stakeholder group that will collaborate on challenges and opportunities associated with NBS projects around the Bay, including San Leandro, Hayward, Oro Loma, and others
- Development of a toolkit for NBS at wastewater treatment plants, including cost-benefit analysis
- Continued UC Berkeley research at the Oro Loma Horizontal Levee demonstration project, including study of reverse osmosis (RO) concentrate treatment
- A feasibility study for NBS at the Hayward Ponds
- Design and environmental permitting of the EBDA First Mile horizontal levee project

EBDA will lead the Hayward and First Mile projects with support from SFEP and the EBDA

Member Agencies. The Transforming Shorelines Project is funded by a grant from the EPA Water Quality Improvement Fund. In November 2019, the Commission approved Resolution 19-42 authorizing the General Manager to enter into a funding agreement with the Association of Bay Area Governments, SFEP's parent agency. Per that agreement, SFEP will pass through grant funds to EBDA to reimburse the Authority for consultant costs associated with the Hayward and First Mile projects.

In coordination with SFEP and EBRPD, EBDA staff has developed a Request for Proposals (RFP) seeking an engineering and environmental consultant for the Hayward and First Mile projects. The RFP will be distributed to potentially interested firms and posted on EBDA's website in September, with a goal of awarding the contract at the Commission's November meeting. Following consultant selection and development of a work plan, staff and the consultant will initiate public and stakeholder outreach associated with the project, likely in early 2021.

BACWA NBS Study

As part of the renewed Nutrients Watershed Permit, which became effective on July 1, 2019, the wastewater agencies around the Bay committed to spending $500k through BACWA to evaluate opportunities for using NBS to reduce nutrient loads to the Bay while achieving the other benefits related to habitat and climate resilience, and associated costs. This study is intended to be a companion to the regional study of the cost of nutrient reduction through conventional treatment technology funded by BACWA and developed by HDR under the last permit term. Under the new permit, BACWA will also be funding a regional summary of nutrient reductions through water recycling to complete the menu of options.

BACWA contracted with San Francisco Estuary Institute (SFEI) to perform the NBS study. SFEI has completed an initial desktop analysis to identify opportunities for horizontal levees and open water wetlands near each treatment plant. This preliminary desktop analysis will be provided to the Regional Water Quality Control Board by December, following agency review. The next phase will include further refinement of opportunities using site-specific information, and development of cost estimates. Since there is considerable potential overlap between the BACWA study and the Transforming Shorelines project, as well as work SFEI is doing on nature-based shoreline adaptation for other projects, core staff from SFEP, SFEI, and EBDA are meeting regularly to ensure that the projects are coordinated and complement each other rather than duplicating efforts.

Future Grant Opportunities

EBDA staff is working with SFEP and other partners to identify grant opportunities that would provide funding to continue the NBS work described above. EBDA, SFEP, Oro Loma, and researchers at UC Berkeley are working on a Letter of Interest for a Coastal Resilience grant program administered by the California Ocean Protection Council (OPC) with funds from Proposition 68. Under this grant, the team proposes to continue the research at the Oro Loma Horizontal Levee Demonstration Project. The project would extend and expand the research and monitoring of RO concentrate begun under the Transforming Shorelines project, and reconfigure other cells within the living laboratory in an effort to perform value engineering and optimize the design of horizontal levee systems. This value engineering effort would feed

directly into design and implementation of the First Mile project, along with other horizontal levee projects that are in various stages of development around the Bay. The Letter of Intent for this grant will be submitted on September 14, 2020. If deemed eligible, a full proposal will be due on November 13, 2020, and project selection is expected in February 2021.

Working with SFEP, EBDA staff also submitted a concept proposal for California Department of Water Resources (DWR)'s Coastal Watershed Flood Risk Reduction Grant Program. The concept included $9.7 million for implementation of the First Mile project. DWR responded confirming that the project met eligibility criteria for the grant. However, based on discussions with SFEP and East Bay Regional Park District, EBDA staff has determined that it is premature to submit a full proposal for First Mile implementation funding at this time. The project will be better placed for funding once the design has proceeded and additional discussions have taken place regarding future governance for the project. At that time, likely around one year from now, staff will work with partners to secure grants from the San Francisco Bay Restoration Authority, Integrated Regional Water Management funding, and/or other sources for implementation.

ITEM NO. RA7 RECYCLED WATER IN THE SAN FRANCISCO BAY REGION

Recommendation
For the Committee's information only; no action is required.

Background
The Authority and its Member Agencies are engaged in water recycling to offset potable water uses including irrigation and power plant cooling. Regionally, statewide, and nationally, regulatory agencies and many stakeholders are focused on increasing water recycling to further offset potable water use, create resilient supplies, and reduce pollutant loading to the Bay and ocean.

Discussion
At its September 9, 2020 meeting, the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) received a summary of the status of water recycling in the Bay Area. Regional Water Board's staff report for this item is attached and contains a helpful status report on recycling totals, innovative projects, regulatory environment, and drivers and challenges for expansion.

As noted in Item No. RA6, the Bay Area Clean Water Agencies (BACWA) is currently engaged in an effort to summarize the potential for nutrient discharge reduction associated with planned expansion of recycled water projects. EBDA and its members are participating in this study and in collaborations with the Regional Water Board on recycling efforts. EBDA's current recycling project to irrigate the Skywest Golf Course is continuing on a temporary basis as the City of Hayward evaluates future use of the Skywest site and expansion of its recycled water service.

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Margaret Monahan and Melissa Gunter)
MEETING DATE: September 9, 2020

ITEM: **7**

SUBJECT: **Recycled Water in the San Francisco Bay Region –** Information Item

DISCUSSION: This item summarizes the status of recycled water production and use, and our regulatory oversight over those, in the San Francisco Bay Region. Recycled water is a reliable alternative water supply that can help California communities become more resilient in the face of climate uncertainty, particularly by increasing the long-term reliability and sustainability of water supply sources.

Recycled water is treated wastewater that is productively reused. The term typically has been applied to domestic wastewater treated via centralized publicly owned treatment facilities that is distributed via purple pipe. Demand for and acceptance of recycled water are expanding and now also include decentralized, onsite non-potable water treatment and reuse, along with the recycling of wastewater that does not include domestic wastewater.

Recycled water production and use have been increasing regionally, from about 30,000 acre-feet per year in 2001 to 64,000 acre-feet per year in 2019. This is about nine percent of the total recycled water use statewide. The largest quantity of regionally recycled water used in 2019 was for industrial applications, followed by landscape and golf course irrigation. Onsite reuse of graywater, rainwater, and stormwater is also increasing, but remains a small percentage of the total recycled water use.

The State Water Resources Control Board (State Water Board) adopted an amendment to the Water Quality Control Policy for Recycled Water (Recycled Water Policy) on December 11, 2018 (effective on April 8, 2019). The amendment includes numeric goals for the use of recycled water, two narrative goals to encourage recycled water use in groundwater-overdrafted and coastal areas, and statewide requirements to report annually on the volume of recycled water produced.

We are implementing the actions necessary to achieve the Policy goals, with our current focus being the transition of existing recycled water programs from a regional order to the State Water Board's Water Reclamation Requirements for Recycled Water Use (Statewide General Order) for recycled water uses to provide statewide consistency. Over the past year, we worked collaboratively with our recycled water permittees to transition 22 of the programs to the Statewide General Order in April 2020. In addition to the Statewide General Order, the State Water Board's General Waste Discharge Requirements for Small Domestic Wastewater

Treatment Systems provide regulatory coverage for recycled water projects under certain conditions.

Using the above tools, we are working to permit several innovative recycled water projects, including onsite recycled water projects at technology company office campuses, which will combine domestic wastewater with harvested rainwater for treatment and reuse to flush fixtures and for irrigation.

The following sections provide: background information; a summary of recycled water production volumes and uses in our region; a discussion of the Recycled Water Policy; implementation actions our Region is taking; and perspectives on the future of recycled water, highlighting both innovative recycled water projects and challenges associated with increasing and expanding recycled water use.

Background

Recycled water is wastewater that has undergone treatment so that it can be reused for other purposes. Title 22 of the California Code of Regulations (CCR) (Title 22) has the primary regulations that govern the production and use of recycled water from municipal or domestic sources, with the allowable use based on the level of treatment. The lower level of treatment results in "undisinfected secondary" quality, which can be used for flushing sanitary sewers, and the more advanced "disinfected tertiary" quality, which may be used for uses including toilet flushing and irrigating residential landscaping. This information item is focused on recycled water from municipal sources, but we also touch on other forms of water recycling, such as onsite reuse of alternate water sources such as greywater (wastewater generated from showers and sinks, excluding domestic sewage), rainwater, and industrial process water.

Recycled water is an important component of building California's water resilience. The Water Resilience Portfolio Report developed by several state agencies in response to Governor Newsom's Executive Order N-10-19 states that climate change will increase water supply challenges throughout the state. The State Water Board recognizes that recycled water is a reliable alternative water supply that can assist California communities in becoming more resilient in the face of climate uncertainty. Many of the actions the State Water Board and regional water boards are taking in implementing the Recycled Water Policy and permitting recycled water projects work to fulfill the Water Resilience Portfolio goals, including:

- Secure sustainable groundwater supplies by supporting sustainable use;
- Preserve groundwater basin quality to enable large-scale water recycling;
- Recycle at least 2.5 million acre-feet per year in the next decade;
- Support statewide source control programs for constituents of emerging concern;
- Modernize water data systems; and
- Help regions prepare for inevitable drought

San Francisco has been a leader in water recycling since the completion in 1932 of the first recycled water treatment plant in California, the McQueen Treatment

Plant near Golden Gate Park. The Bay Area has a long history of regional recycled water planning. In the early 1990s, following years of drought and facing uncertain future water supplies, Bay Area wastewater and water public utilities formed a partnership with the United States Bureau of Water Reclamation and the California Department of Water Resources to study the feasibility of a regional approach to water recycling. Similarly, water supply and clean water agencies throughout the North Bay counties of Marin, Sonoma, and Napa have been meeting since the early 2000s to investigate opportunities to expand the use of recycled water for agricultural and other purposes.[1] In 1996, the Board adopted General Water Reuse Requirements Order R2-1996-011 (Regional General Order) to serve as a region-wide general permit for publicly owned wastewater and water agencies that recycle municipal wastewater. The Regional General Order streamlined the permitting process, supported local water reuse programs, and served as a model for the Statewide General Order.

The success of the recycled water program in our Region is due in significant part to the collaborative relationship between the recycled water entities and the Regional Water Board. Working partnerships include the Bay Area Clean Water Agencies (BACWA), a joint powers agency formed by wastewater treatment agencies in the Region. We engage with their recycled water committee to communicate about municipal wastewater community issues and recycled water projects, and to build regional collaboration. With no budgeted staff resources for recycled water permitting and oversight, we depend on those collaborative relationships to facilitate the program's development and implementation.

Recycled Water Production and Uses

The Water Resilience Portfolio Report and the Recycled Water Policy set a goal of increasing recycled water use in California to at least 2.5 million acre-feet per year by 2030. To evaluate current statewide recycled water use and opportunity, the Policy requires annual volumetric reporting of wastewater and recycled water. The first volumetric reports, for 2019, were submitted in June 2020.

In July 2019, the State Water Board issued an order to update recycled water monitoring and reporting programs to implement the Recycled Water Policy monitoring requirements statewide. The Order requires wastewater treatment plants and recycled water producers to electronically submit annual reports of volumetric data for influent (what is coming into the treatment plant), effluent produced (volume of wastewater treated), effluent discharged (where is the water going), and recycled water used.

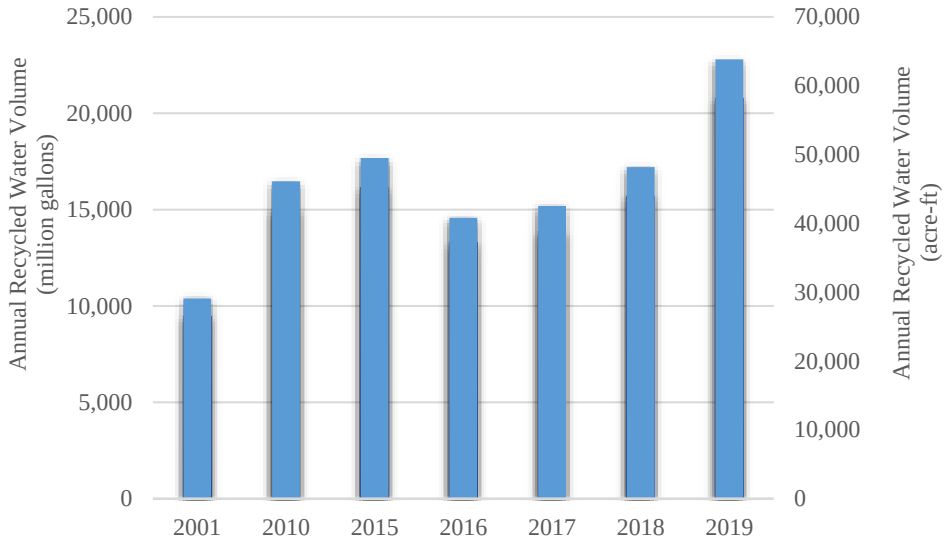
Based upon the 2019 data submitted to date, Bay Area wastewater treatment plants are recycling approximately five percent of their effluent. Treatment plants generated approximately 1.2 million acre-feet (AF) or (392,103 million gallons)

[1] Bay Area Clean Water Agencies. "Bay Area Integrated Regional Water Management Plan – Wastewater and Recycled Water Functional Area Document." March 3, 2006. https://bacwa.org/wp-content/uploads/2007/09/10385-Water-Recycling-IRWMP-3-3-06.pdf

and recycled 63,809 AF (20,792 million gallons).[2] Statewide, the reported volumes of effluent and produced recycled water for 2019 were 187 million AF, and approximately 697,358 AF, respectively, a recycling rate of about 3.7 percent.

The Recycled Water Policy stipulates twelve recycled water use categories, including agricultural irrigation, industrial applications (e.g., cooling towers and process water), and other non-potable uses (e.g., dust control, sewer flushing, and fill stations). Prior to electronic reporting, recycled water data were collected via surveys and permittee-submitted annual reports and thus, the recycled water use categories varied. Further data analysis will be conducted to understand differences in the data sets and changes over time. The estimated volumes of recycled water produced in the Region have generally increased over time (Fig. 1).

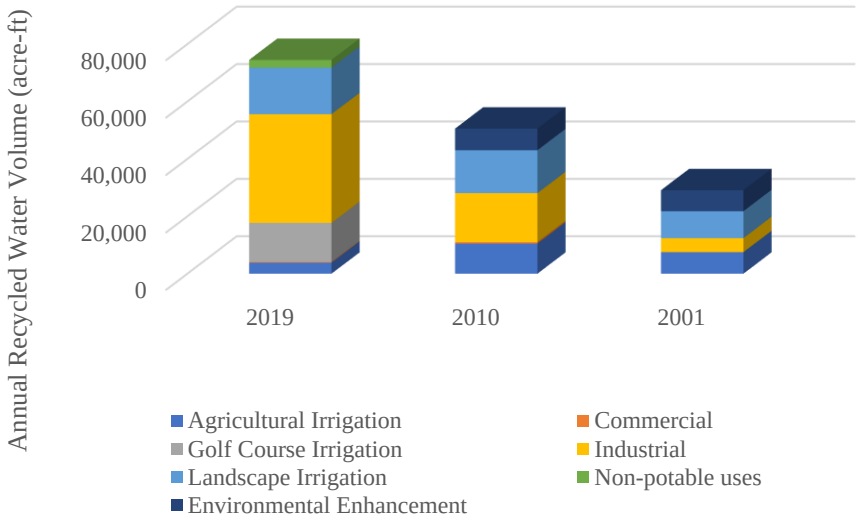
Figure 1: **Recycled Water in San Francisco Bay Region**



Recycled water production volumes per use category in the Region are depicted in Figure 2. The largest quantity of regionally recycled water used in 2019 was for industrial applications, which is also the use with the greatest volume increase between 2010 and 2019, followed by landscape and golf course irrigation. The environmental enhancement use that appears in 2001 and 2010 was not a reportable category in 2019, and thus does not appear since the use has been recategorized, although the uses are continuing. It typically includes natural system restoration, wetland/marsh applications, and wildlife habitat such as a duck pond served by the City of Palo Alto.

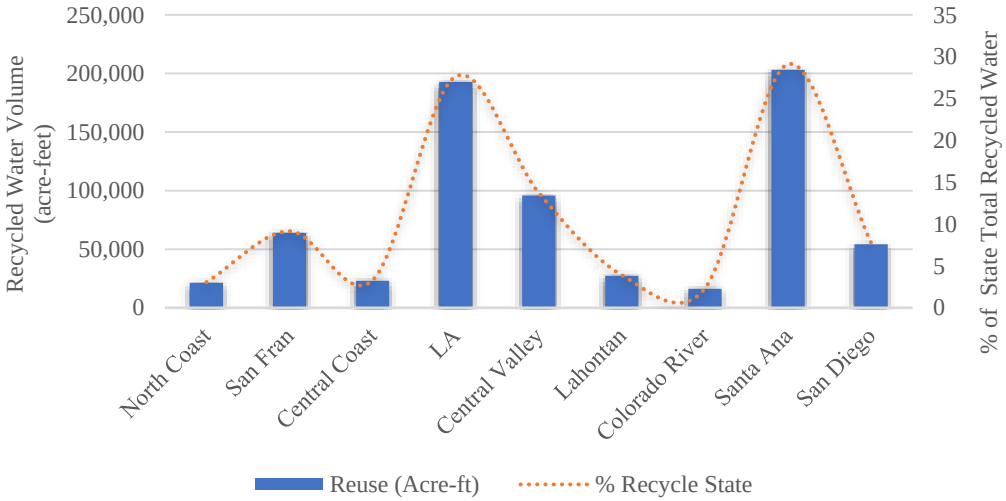
[2] The reported recycled water volumes are not final since approximately thirteen percent of the permittees statewide have not completed their electronic volumetric reporting in GeoTracker ESI (Electronic Submittal of Information).

Figure 2: **San Francisco Bay Region Annual Recycled Water Volumes by Use**



The reported 2019 recycled water volumes were also compared across the regional boards and to the total statewide volume (Fig. 3). The largest volumes of recycled water were produced in the Santa Ana and Los Angeles regions, collectively contributing to approximately 57% of recycled water produced in the state.

Figure 3: **Regional Water Board 2019 Recycled Water Volumes**



Recycled Water Policy and Transition of Permittees to the Statewide Recycled Water General Order

The Recycled Water Policy was first adopted by the State Water Board in 2009 to encourage the safe use of recycled water, to set goals for streamlining permitting, and to investigate constituents of emerging concern. The State Water Board adopted an amendment to the Recycled Water Policy on December 11, 2018

(effective on April 8, 2019), to address advancements in recycled water and regulatory developments, such as the Sustainable Groundwater Management Act and potable reuse regulations. The Policy amendment includes numeric recycled water use goals, and provisions for improvements to the tracking and reporting of recycled water production and for the promotion of basin-wide management of salts and nutrients in groundwater. One of the Policy's implementation actions is to improve recycled water permit consistency, to allow more efficient planning by recycled water programs and more efficient permitting by the Water Boards. To improve consistency, the State Water Board adopted the 2016 Statewide General Order, which was modeled after our Region's 1996 Regional General Order. The Statewide General Order conditionally delegates authority to the recycled water permittees, such as a municipality, who can then manage their own water recycling program for their city or service area and issue water recycling permits to users within their program. This provides a streamlined permitting pathway for non-potable recycled water projects and is intended to expand non-potable reuse statewide. The Recycled Water Policy amendment set requirements for the regional boards to transition existing recycled water programs to the State General Order for statewide consistency.

In our Region, there are 49 recycled water projects or programs under Water Reclamation Requirements (WRRs) and additional projects that recycle onsite under Waste Discharge Requirements (WDRs). In accordance with the Recycled Water Policy, we worked collaboratively with our permittees under the Regional General Order to transition 22 of the programs to the State General Order in April 2020. We minimized staff administrative work in transitioning the permittees to the State General Order by implementing a streamlined process and issuing one Notice of Applicability and Monitoring and Reporting Program for all permittees. We collaborated with the permittees throughout the process to keep them informed as well as receive their input on proposed changes as compared to the Regional General Order.

The next steps in our permitting process include transitioning another four permittees under the Regional General Order, once their recycled water engineering reports have been updated and approved. The remaining recycled water permittees, who are enrolled under individual WRRs, will be assessed and transitioned to the Statewide General Order on a case-by-case basis as appropriate. We will consider additional streamlining opportunities in permitting, such as for single entities that currently have more than one recycled water permit. Following the transition of all the recycled water permittees from the Regional General Order to the Statewide General Order, we will ask the Board to consider rescinding the Regional General Order.

Another implementation action of the Recycled Water Policy is for each Regional Water Board to evaluate its region's groundwater basins for salt and nutrient threats by April 2021. The evaluation will result in the identification of basins, through a resolution or executive officer determination, where salt and nutrient management planning is needed to achieve water quality objectives in the long term.

Future of Recycled Water

To help address the need for a statewide strategy to improve water supply resilience and advance water reuse statewide over the next 30 years, in 2019 WateReuse California[3] developed the California WateReuse Action Plan.

Several of the Action Plan's proposed actions are related to recycled water regulations and call on the State Water Board to develop statewide regulations for raw water augmentation and onsite reuse, and to update existing non-potable recycled water regulations. Assembly Bill 574 (Quirk 2017) established a 2023 legislative deadline for the development of statewide regulations for raw water augmentation. AB 574 requires that the State Water Board develop the regulations with the advice of an expert panel. Senate Bill 966 (Wiener 2018) requires the State Water Board to adopt regulations for risk-based water quality standards for the onsite treatment and reuse for non-potable end uses in multifamily residential, commercial, and mixed-use buildings by December 2022. This will enable and authorize local communities to establish their own onsite water recycling programs, providing guidance and predictability in designing, permitting, installing, and operating onsite systems. SB 966 was sponsored by the San Francisco Public Utilities Commission (SFPUC).

SFPUC has contributed to the development of a risk-based pathogen reduction framework and has incorporated it into their Non-potable Water Program, which provides a permitting process for the collection, treatment, and reuse of alternate water sources for non-potable uses. To support collaboration with permitting recycled water projects, the Regional Board adopted Water Reclamation Requirements for the City and County of San Francisco's Non-Potable Water Program in 2017.

The WateReuse Action Plan calls for the State Water Board to update Title 22 water recycling criteria and use requirements for all non-potable recycled water projects in the state. These regulations have not been updated in nearly 20 years and contain a number of outdated and overly prescriptive requirements for non-potable recycled water use that are not needed for the protection of public health or the environment. Maintaining outdated regulatory requirements deters the development of new non-potable recycled water uses and increases operating costs for existing recycled water projects.

Within our region, we strive to provide scale-appropriate, protective regulatory approaches to permitting and the development of water quality monitoring criteria to support the proliferation of recycled water. This is supported by referencing and incorporating findings and guidance into our permitting efforts resulting from research conducted by trusted, informed, and educated sources. Examples include

[3] WateReuse California is a state section of the WateReuse Association with the mission to promote responsible stewardship of California's water resources by maximizing the safe, practical, and beneficial use of recycled water and by supporting the efforts of the of WateReuse Association. The WateReuse Association was founded by water leaders in California thirty years ago and is the nation's only trade association solely dedicated to advancing laws, policy, funding, and public acceptance of recycled water. WateReuse represents a coalition of utilities that recycle water, businesses that support the development of recycled water projects, and consumers of recycled water.

addressing the risk-based pathogen log reduction framework supported by SB 966 through permit conditions and monitoring requirements. In 2019, we applied a flexible yet protective permitting approach to the use of secondary treated effluent at the Bel Marin Keys interagency, multi-benefit wetland restoration project for soil conditioning and compaction, dust control, and plant irrigation. Our overarching approach to recycled water projects is to align with Title 22 water recycling criteria while collaboratively providing flexibility when there is no threat to public health.

Our region is also requiring all major municipal wastewater dischargers in the Region to evaluate water recycling opportunities as part of the NPDES Nutrients Watershed Permit as a potential option to reduce the nutrient load of wastewater discharged to the Bay. This will inform the regulatory and the wastewater community of the extent that dischargers may be able to reduce nutrient loads while providing additional environmental and societal benefits through water recycling (e.g., reduced natural water resource diversion, reduced demand for potable water). The Nutrients Watershed Permit requires the submittal of a Recycled Water Scoping and Evaluation Plan (submitted November 2019) and a Final Report describing the results of the evaluation and implementation by July 2023. BACWA is also involved with developing and reviewing these plans.

Innovative Recycled Water Project Highlights

Advanced purified water projects, aimed at producing potable (drinking) water, are in the planning stages throughout the Region and include the 2014 commencement of the operation of the Santa Clara Valley Water District's (Valley Water's) Silicon Valley Advanced Water Purification Center. Valley Water's goal is to develop recycled water to provide for at least 10 percent of the total county water demands by 2025. SFPUC is involved through its PureWaterSF project, which is a research project that explores how to treat and reliably produce purified water on a building scale using wastewater generated onsite to meet or exceed drinking water standards.

New municipal scale recycled water projects in the Region include SFPUC's Westside Recycled Water Project and the West Bay Sanitary District's Sharon Heights Recycled Water Facility. SFPUC's Westside project will retrofit the existing Oceanside wastewater treatment plant to provide recycled water to Golden Gate Park and the Lincoln Park Golf Course. The Sharon Heights recycled water project, by contrast, is a satellite treatment facility that redirects and treats wastewater from the sanitary sewer collection system for recycled water uses of golf course irrigation and a Caltrans truck fill station, and discharges the solids back into the sanitary sewer collection system for treatment at a different facility.

Another innovative recycled water treatment project is the upgraded City of Petaluma's Ellis Creek Water Recycling Facility, which blends leading-edge treatment technologies with natural processes. A component of the wastewater treatment process is polishing wetlands, which use natural treatment processes to remove nutrients and metals from the wastewater.

Finally, the Microsoft Silicon Valley and Google Bay View office campuses are combining domestic wastewater with harvested rainwater for treatment and reuse on campus for flushing fixtures and irrigation. The Microsoft and Google Bay View projects also include low impact development designs for stormwater management. Two additional projects, by Facebook and at Google's Charleston East campus, integrate smaller, decentralized, onsite water systems into the larger centralized systems by collecting and treating water onsite to serve non-potable needs, thus reducing the demand for potable water for those needs.

Challenges

California has ambitious goals for recycled water use, but there are numerous challenges with increasing the use of recycled water that we must continue to work to overcome. First are monetary challenges in the form of infrastructure investments and treatment upgrades. In some areas, recycled water project infrastructure investments are not yet economically viable when compared to other sources of water.

It also remains challenging for prospective recyclers to navigate the several agencies involved in recycled water regulations and permitting. This is being improved for non-potable reuse projects by transitioning existing and enrolling new recyclers in the Statewide General Order, as described above. However, projects still face regulatory uncertainty in areas such as onsite reuse of non-potable water and direct potable reuse.

Technical challenges can also make it difficult to use recycled water. For example, reverse osmosis, a form of treatment technology used to filter water for high quality reuse, produces a concentrated brine, which has disposal impediments. Elevated total dissolved solids in recycled water can be an impediment to using it for irrigation. There are data gaps and research needed to verify the efficacy of new treatment technologies, improve monitoring for pathogens, identify and manage constituents of emerging concern (CECs), and optimize pollutant source control. Finally, despite decades of what is essentially potable reuse of recycled wastewater by communities along river systems (e.g., along the Colorado), public perception remains a significant challenge to the potable use of recycled water, which continues to be addressed through the WateReuse Communications Collaborative Group framework and terminology for discussing water reuse with the public.

The Water Boards are working to address many of these challenges. The State Water Board Division of Financial Assistance is working to fund recycled water projects. For example, the SFPUC's Westside and West Bay Sanitary District's recycled water projects received funding from the Clean Water State Revolving Fund administered by the State Water Board. The updates to the Recycled Water Policy and concerted efforts to implement the Policy actions, as well as ongoing recycled water research funded by the State Water Board, are addressing some of the challenges.

In addition to the Recycled Water Policy actions discussed above, the Policy includes updated monitoring requirements for CECs, as well as two bioanalytical

screening tools to evaluate bioactivity in recycled water resulting from estrogenic and dioxin-like constituents, based on the recommendations of the most recent Science Advisory Panel for CECs in Recycled Water. Our Region is currently leading a statewide CECs project to synthesize and evaluate the significance of available CECs water quality data including ambient data (water, sediment, and aquatic biota in river, stream, estuary, bay, and marine waters), as well as pathways data (wastewater, stormwater, and recycled water), and to identify priorities for management and monitoring. The Aquatic Science Center is conducting the synthesis in collaboration with the Water Boards' CECs Initiative Team and stakeholders, thereby building on the knowledge base from our San Francisco Bay Regional Monitoring Program Emerging Contaminants Workgroup.

Finally, Regional Water Board staff continue to stay engaged in recycled water discussions with stakeholders. We recently participated in a focus group of thought leaders connected to onsite non-potable water projects and programs to identify institutional, regulatory, and social challenges with implementing onsite urban water management technologies and reuse. The research effort will result in a report that addresses novel ways for overcoming the challenges, create new strategic options for utilities, and provide policy advice.

Summary

Water recycling enhances the sustainability and effective use of water resources and is a reliable and environmentally sensitive means to expand California's available water resources and reduce the demand on freshwater systems. Recycled water production and use have increased over time in our Region and there are several innovative recycled water projects and long-term initiatives currently under way. Regional efforts are under way to identify opportunities to increase recycled water use from the current five percent of the Region's effluent that is currently being recycled.

We are working diligently to implement the actions necessary to achieve the Recycled Water Policy goals. Despite the challenges associated with increasing recycled water use, numerous efforts are being made to overcome those challenges, from development of new recycled water regulations to recycled water research efforts.

RECOMMEN-DATION: No action needed; information item

ITEM NO. RA8 BACWA KEY REGULATORY ISSUE SUMMARY

Recommendation
For the Committee's information only; no action is required.

Background
Periodically, BACWA's Regulatory Program Manager updates a Key Regulatory Issues Summary that contains succinct information on regulatory issues of interest to Bay Area wastewater agencies. The Summary matrix contains background, challenges and recent updates, next steps for BACWA, and links to key resources and documents.

Discussion
The most recent issue summary is attached. Previous versions are available at https://bacwa.org/regulatory-issues-summaries/.

KEY REGULATORY ISSUE SUMMARY
Updated September 3, 2020

Action items for member agencies are in **bold**

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
NUTRIENTS IN SAN FRANCISCO BAY – SCIENCE			
• San Francisco Bay receives some of the highest nitrogen loads among estuaries worldwide, yet has not historically experienced the water quality problems typical of other nutrient-enriched estuaries. It is not known whether this level of nitrogen loading, which will continue to increase in proportion to human population increase, is sustainable over the long term. • Because of the complexity of the science behind nutrient impacts in the SF Bay, stakeholders in the region are participating in a steering committee to prioritize scientific studies and ensure that all science to be used for policy decisions is conducted under one umbrella.	• For FY20, BACWA contributed the $2.2M required by the Watershed Permit, as well as "frontloading" additional funds that would be subtracted from future permit years. Moving the funding up will accelerate the pace of the science that will be used for management decisions for the third Watershed Permit. • Agencies are conducting effluent monitoring for nutrients under the watershed permit. • Current scientific efforts are focused on expanding monitoring data, modeling, and work exploring the linkage between nutrients, dissolved oxygen, and harmful algal species. • Future studies will be focused on the science needed to inform the development of nutrient load caps for the third Nutrient Watershed Permit.	• BACWA and the Regional Water Board are discussing the possibility of an extension of the current permit term to increase scientific certainty prior to making management decisions. • Continue to participate in steering committee, and planning subcommittee, and provide funding for scientific studies. • Participate in the Nutrient Technical Workgroup, which is a venue to provide technical input to the process, and is open to the public, as well as small technical subgroups addressing items such as the Assessment Framework. • Restarted the Nutrient Management Strategy meetings.	BACWA "Other Useful Nutrient Documents" Page: http://bacwa.org/nutrients/other-useful-nutrient-documents/ SFEI Nutrient Science Plan Documents: http://sfbaynutrients.sfei.org/books/reports-and-work-products

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
SF BAY NUTRIENT WATERSHED PERMIT			
• The first nutrient watershed permit was adopted in April 2014. The second Nutrient Watershed Permit (NWP) was adopted May 8, 2019 with an effective date of July 1, 2019. • The second NWP includes: ○ Continued individual treatment plant nutrient monitoring and reporting; ○ Continued group annual reporting; ○ Significantly increased funding for science; ○ Regional assessment of the feasibility and cost for reducing nutrients through nature-based systems and recycled water; ○ Establishing current performance for TIN, and "load targets" for nutrient loads based on 2018 load data plus a 15% buffer for growth and variability ○ Recognition of "early actors" who are planning projects that will substantially decrease TIN loads. • Through the nutrient surcharge levied on permittees, BACWA funds compliance with the following provisions on behalf of its members: ○ Group Annual Reporting ○ Optimization and Facilities Upgrade Studies (first permit term) ○ Regional Studies on Nature Based Systems and Recycled Water (second permit term) ○ Support of scientific studies through the RMP at $2.2M per year through the five-year permit term.	• BACWA submitted a final report on Nutrient Treatment by Optimization and Upgrade on June 26, 2018. An agency-customizable presentation, and a brochure to educate governing boards and the public were made available to our members. • BACWA and SFEI most recently submitted a science implementation plan and schedule update on February 1, 2020. • All agencies covered by the Nutrient Watershed Permit participated in the first four group Annual Reports, submitted in 2015, 2016, 2017, and 2018. Agencies are now reporting to BACWA via a data sheet developed by the consultant. An updated data sheet was distributed to agencies that accounts for changes in the monitoring and reporting program in the second Watershed Permit, including the following: ○ The second watershed permit reporting period is now based on water year, through September 30, instead of permit year, through June 30. The first Group Annual Report under the new permit was submitted Feb 1, 2020. ○ Agencies with flows greater than 10mgd are required to conduct influent monitoring. ○ Organic nitrogen and soluble reactive phosphorus are no longer required to be monitored in effluent. • Agencies with plans to substantially reduce nutrients are recognized in 2nd Watershed Permit Fact Sheet.	• **Agencies continue to report nutrient monitoring to the Water Boards through CIWQS and to BACWA via the data sheet.** • **Agencies with plans to implement projects that will substantially reduce nutrient loads should keep the Regional Water Board and BACWA apprised, to get credit for "early actions".** • **Work with HDR and SFEI as needed to collect information for Nutrient Removal by Recycled Water Evaluation and the Nature-Based Systems study.** Agencies provided preliminary information in June 2020. • Begin discussions about development of a potential Nutrient Trading framework. • BACWA has reconvened the Nutrient Strategy Team (NST) that will negotiate with the Regional Water Board to develop the tenets for the 3rd Watershed Permit.	Second Nutrient Watershed Permit: https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2019/May/6_ssr.pdf Optimization/Upgrade Study Final Report: https://bacwa.org/wp-content/uploads/2018/06/BACWA_Final_Nutrient_Reduction_Report.pdf Optimization/Upgrade Report Presentation: https://bacwa.org/wp-content/uploads/2019/03/bacwa_brochure_presentation_20190312.pptx Optimization/Upgrade Report Brochure: https://bacwa.org/wp-content/uploads/2019/03/BACWA-2019-Nutrient-Brochure_Final_20190301.pdf BACWA Nutrient Annual Reports: http://bacwa.org/document-category/nutrient-annual-reports/

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
CHLORINE RESIDUAL COMPLIANCE			
• The Basin Plan chlorine residual effluent limit is 0.0 mg/L. Chlorine residual is the most frequent parameter for violations for Region 2 POTWs, however, because there are 24 hourly reporting events each day, the "opportunities" for violations are enormous. However, the actual violation rates are infinitesimal (~0.001%). • Agencies are overdosing their effluent with the dechlorination agent, sodium bisulfite, to prevent chlorine violations, a practice which costs more than $1 million regionally each year.	• The Regional Water Board has worked with BACWA to develop a Basin Plan Amendment (BPA). BACWA has retained consultant support for this effort. • **A draft BPA was released August 18, 2020. Comments are due October 2 and adoption is anticipated at the November Board meeting.** • The draft BPA includes: ○ A 0.013 mg/L Water Quality Objective , which will be applied as a WQBEL in permits, calculated incorporating dilution. The WQBEL will be applied as a one hour average. ○ A Minimum Level (ML), or Reporting Limit of 0.05 mg/L for online continuous monitoring system.	• **Discuss BPA and prepare comments on the draft BPA (due October 2, 2020).** • **Work with shallow water dischargers (no dilution credits) in advancing additional information to the Board in support of increasing the proposed 0.05 mg/L ML (although these agencies will still benefit from the proposed one-hour averaging period).**	Basin Plan Amendment support Scope of Work: https://bacwa.org/wp-content/uploads/2018/01/EOA-Inc.-SOW-Budget.pdf SF RWQCB CEQA Scoping meeting May 22: https://www.waterboards.ca.gov/sanfranciscobay/press_room/R2%20TRC%20BPA%20CEQA_Scoping_Mtg%20Lyris%20Notice.pdf Proposed BPA and Draft Staff Report released August 18, 2020. https://www.waterboards.ca.gov/sanfranciscobay/public_notices/Chlorine%20BPA%20Draft%20Staff%20Report%20%20BPA%208.18.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
PESTICIDES			
• Pesticides are regulated via FIFRA, and not the Clean Water Act. POTWs do not have the authority to regulate pesticide use in their service area, but may be responsible for pesticide impacts to their treatment processes or to surface water. • Through BAPPG, BACWA aims to proactively support a scientifically sound pesticide management program that will not impact POTWs' primary functions of collecting and treating wastewater, recycling water, and managing biosolids.	• Beginning 2016, EPA has been reviewing the registration of several key pesticides, a task it conducts once about every 15 years. • BACWA has funded consultant support to write comment letters advocating for the consideration of POTW and surface water issues during EPA's risk assessments as part of reregistration. Funding was increased from $30K to $60K in FY20/21. • The Regional Water Board leverages BACWA's efforts to provide their own comment letters to EPA. • With chronic toxicity limits likely in the near term, POTWs will be in compliance jeopardy if pesticides contribute to toxicity. • Baywise.org has launched webpages on flea and tick control messaging to pet owners and veterinarians.	• Continue to comment on pesticide reregistrations. • Work with veterinary associations on messaging with respect to flea and tick control alternatives. • Continue to develop summary of EPA actions on pesticides. • Look for opportunities to work with CalDPR on pesticides research.	BACWA Pesticides Regulatory Update and Call to action: https://bacwa.org/wp-content/uploads/2016/02/BACWA-Pesticide-Regulatory-Update-2016-1.pdf BACWA Pesticide Regulatory Support Page: https://bacwa.org/document-category/pesticides-regulatory-support/ Baywise flea and tick pages: https://baywise.org/

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
MERCURY/PCB WATERSHED PERMIT			
• Mercury/PCB Watershed Permit was reissued on 11/8/17 with 1/1/18 effective date. The Watershed Permit is based on the TMDLs for each of these pollutants. • Aggregate PCB and mercury loads have been well below waste load allocations through 2016. • Method 1668C for measuring PCB congeners has not been promulgated by EPA. Data collected during the first permit term varied widely depending on which laboratory performed the analyses. BACWA Laboratory Committee developed an updated PCB Protocol to reduce variability between laboratories running Method 1668C, effective January 1, 2014. Data have been more consistent since the distribution of this document.	• The 2017 watershed permit reduces monitoring frequencies via Method 1668C for agencies with design flows of less than 50 mgd. It also incorporates the laboratory guidance from the BACWA PCB Protocol. • The permit requires continued risk reduction program funding and annual reporting of effort. BACWA is repeating its grant program that it established as part of the previous permit. In summer 2018, two $25,000 grants were awarded, to APA Family Support Services (now complete) and the California Indian Environmental Alliance (ongoing through 2020).	• Continue outreach to dentists on amalgam separation through BAPPG and BACWA's pretreatment committee. • Schedule risk reduction presentations by the grantees to the Regional Water Board in 2021.	2017 Mercury/PCB Watershed Permit: http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2012/R2-2012-0096.pdf Risk Reduction Materials from 2012 and 2017 Permit term: https://bacwa.org/mercurypcb-risk-reduction-materials/ Updated BACWA PCBs Protocol: https://bacwa.org/wp-content/uploads/2014/02/PCBs-Sampling-Analysis-and-Reporting-Protocols-Dec13.pdf
ENTEROCOCCUS LIMITS			
• In August 2018, the State Water Board adopted new statewide bacteria water quality objectives and implementation options to protect recreational users from the effects of pathogens in California water bodies. The objectives and implementation options are a new part 3 of the Water Quality Control Plan for the SIP and Ocean Plan. • The Objectives were approved by the Office of Administrative Law in February 2019 and by EPA in March 2019	• The new enterococcus objective for saline waters is a six-week rolling geometric mean of enterococci not to exceed 30 cfu/100 mL, calculated weekly, with a statistical threshold value of 110 cfu/100 mL, not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner. • The Regional Water Board has been granted dilution credit upon request when implementing the new objectives in NPDES permits.	• BACWA worked with SFEI and funded a study of background enterococcus levels in the SF Bay. Surface water samples were collected in July (dry season) and January (wet season) throughout the Bay. Samples from all stations were below the 30 CFU/100 mL WQO, justifying allowing for dilution credits when implementing the WQO. **The study was completed and submitted in June 2020.**	SWB Bacterial Objective page: https://www.waterboards.ca.gov/bacterialobjectives/ SFEI Final Report on Enterococci in the SF Bay: https://bacwa.org/wp-content/uploads/2020/08/BACWA-2020_Enterococci-report_final.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
STATE WATER BOARD TOXICITY PROVISIONS			
• The State Water Board has been working since before 2012 to establish Toxicity Provisions in the SIP that would introduce uniform Whole Effluent Toxicity Requirements for the State • Draft State Toxicity Provisions posted October 2018, with **a Second Revised Draft released July 7, 2020.** The Provisions would establish: ○ use of Test of Significant Toxicity (TST) as statistical method to determine toxicity replacing EC25/IC25 (with concerns it will lead to more false positive results); ○ numeric limits for chronic toxicity for POTWs >5mgd and with a pretreatment program; smaller POTWs would receive effluent targets and only receive limits if Reasonable Potential is established; ○ Regional Water Board discretion on whether to require RPAs for acute toxicity; ○ for POTWs with *Ceriodaphnia dubia* as most sensitive species, numeric targets rather than limits until after completion of state-wide study on lab/ testing issues (Dec. 31, 2023). During individual permit reissuances since 2015, the Regional Water Board has been performing RPAs for chronic toxicity and giving chronic toxicity limits to agencies with Reasonable Potential.	• Key issues for BACWA continue to be: ○ default of numeric effluent limits for all POTWs >5mgd, without first establishing reasonable potential, ○ reasonable potential analysis methodology, ○ MMEL testing schedule and laboratory capacity, ○ test species variability ○ sensitive species screening requirements • Since 2016, agencies have had the option to skip sensitive species screening upon permit reissuance and pay the avoided funds to the RMP to be used for CECs studies. If agencies are required by the provisions to do sensitive species screening, this will reduce RMP funds by approximatly $100K per year. • BACWA has joined SCAP, CVCWA and NACWA in a lawsuit alleging EPA did not follow proper procedure in requiring use of the TST, which has not been officially promulgated. The lawsuit was dismissed on Statute of Limitation grounds, but the group has filed an appeal. • BACWA hosted a toxicity workshop for its members in September 2017.	• **BACWA submitted comments on the Second Revised Draft Provision on August 24, 2020.** The comments were limited to revisions made in this Second Revised Draft (July 2020). The letter focused on the application of numeric effluent limits for POTWs >5mgd, without first establishing reasonable potential and requested toxicity targets, instead of limits, for POTWs without reasonable potential. • Collaborate with State Water Board, CASA and POTWs Statewide on the special study on the *Ceriodaphnia dubia* test method. • Continue to work with Regional Water Board on language for implementing Toxicity Provisions in Region 2 NPDES Permits.	SWRCB Toxicity Page: http://www.swrcb.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.shtml Toxicity Workshop Presentations: https://bacwa.org/bacwa-toxicity-workshop-september-18-2017/ BACWA Dec 2018 Comments on Toxicity Provisions: https://bacwa.org/document/bacwa-comments-on-toxicity-provisions-12-21-18/ BACWA Feb 2020 Comments on MMEL scheduling: https://bacwa.org/wp-content/uploads/2020/02/BACWA-Tox-Provisions-App-K-to-Staff-Report-comments-2-10-2020.pdf BACWA Aug 2020 Comments on Second Draft of Toxicity Provisions: https://bacwa.org/wp-content/uploads/2020/08/BACWA-Comments-on-2020-Toxicity-Provisions-Update.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
COMPOUNDS OF EMERGING CONCERN			
• Pharmaceuticals and other trace compounds of emerging concern (CECs) are ubiquitous in wastewater at low concentrations and have unknown effects on aquatic organisms. • The State Water Board is considering developing a Pilot CECs Monitoring Plan for the State**.** • Region 2's CEC strategy focuses on monitoring/tracking concentrations of constituents with high occurrence and high potential toxicity. Much of what the State Water Board is considering for its Pilot Monitoring Plan is already being implemented in Region 2 through the RMP.	• The Regional Water Board has stated that voluntary and representative participation in RMP CECs studies is key to avoiding regulatory mandates for CECs monitoring. These studies are informational and not for compliance purposes. BACWA developed a White Paper on representative participation to be used to support facility selection for these studies. It is intended to be a living document with ongoing updates • Microplastics have been a focus of the RMP in recent years. BACWA has participated in the Workgroup and developed a POTW Fact Sheet. One conclusion of the RMP work is that POTWs contribute much lower microplastic loads than stormwater. • DDW has adopted a definition of Microplastics in Drinking Water (expected to apply to other matrices such as wastewater and stormwater)..	• **Continue to participate in the RMP CEC Workgroup and solicit agency participation for future studies.** • Provide ongoing updates to White Paper for use by the RMP in selecting representative POTWs for participation in CEC studies, and develop a proposal for ongoing monitoring. • Continue tracking State Water Board and Ocean Protection Council actions re: microplastics.	RMP CEC Workgroup: http://www.sfei.org/rmp/ecwg#tab-1-4 BACWA CECs White Paper: https://bacwa.org/document/bacwa-cec-white-paper-updated-june-2020/ BACWA Microplastics Fact Sheet: https://bacwa.org/wp-content/uploads/2019/09/BACWA-Microplastics-flyer.pdf SFEI Microplastics Science Strategy: www.sfei.org/documents/microplastic-monitoring-and-science-strategy-san-francisco-bay SWRCB Microplastics in Drinking Water page: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/microplastics.html

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PER- AND POLYFLOUROALKYL SUBSTANCES (PFAS)			
• Per- and polyfluoroalkyl substances made substances (PFAS) are a large group of human-made substances that are very resistant to heat, water, and oil. PFAS have been used extensively in surface coating and protectant formulations; common PFAS-containing products are non-stick cookware, cardboard/paper food packaging, water-resistant clothing, carpets, and fire-fighting foam. • Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS that are no longer manufactured in the US; however, other types of PFAS are still produced and used in the US. • All PFAS are persistent in the environment, can accumulate within the human body, and have demonstrated toxicity at relatively low concentrations. PFOA and PFOS were found in the blood of nearly all people tested in several national surveys. • Potential regulatory efforts to address PFAS focus on drinking water in order to minimize human ingestion of these chemicals, although regulators have also expressed concern about uptake into food from land applied biosolids.	• In Aug 2019, DDW lowered the drinking water notification levels (NLs) to 6.5 ng/L for PFOS and 5.1 ng/L for PFOA (lowest detection possible at the time). In Feb 2020, DDW also lowered the 'response levels' (RLs) to 10 ng/L for PFOA and 40 ng/L for PFOS. • Under AB756 (July 2019), DDW can order public water systems to monitor PFAS, consumers must be notified if NLs/RLs are exceeded, and water sources must be removed from service or blended/ treated if RLs are exceeded (if possible). DDW has requested OEHHA develop NLs for seven other PFAS compounds and public health goals for both PFOA and PFOS, the next step in establishing drinking water MCLs. • In 2019, **the SWRCB developed a phased investigation action plan** requiring testing of drinking water systems and site investigations at high risk locations for PFAS. Investigative orders are issued as follows: ○ Mar/Apr 2019 - landfills and airports and adjacent public water systems ○ Oct 2019 - chrome-platers ○ **July 2020 - POTWs** ○ TBD late 2020 - refineries & bulk terminals	• **The July 2020 SWRCB investigative Order for POTWs is not applicable to Region 2 agencies. Instead, BACWA worked with RWB staff and obtained State Water Board approval to fund and conduct a regional study through the RMP.** • SFEI is conducting this study in two phases: ○ In Phase 1, up to 15 representative facilities (to be selected) will collect samples in Q4 2020 for influent, effluent, RO concentrate, and biosolids. SFEI will analyze data and prepare report (anticipated May 2021). ○ To inform the selection of representative facilities, SFEI developed a questionnaire; response from BACWA agencies is requested by 9/4. ○ Phase 2 will be conducted in Summer/ Fall 2021 and will be designed based on recommendations from Phase 1 report. • The Summit Partners are holding a PFAS Workshop on the SWRCB investigative order for POTWs on September 16. • BACWA will continue collaboration with Summit Partners as well as tracking developments at the State and Regional level.	CASA Factsheet: https://casaweb.org/wp-content/uploads/2019/10/4-CASA_PFASFactSheet4.pdf SWRCB website: https://www.waterboards.ca.gov/pfas/ OEHHA Notification Levels for Drinking Water: https://oehha.ca.gov/water/notification-levels-chemicals-drinking-water EPA PFAS Resources https://www.epa.gov/pfas EPA PFAS Action Plan (updated Feb 2020) https://www.epa.gov/sites/production/files/2020-01/documents/pfas_action_plan_feb2020.pdf SWRCB Investigative Order for POTWs: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2020/wqo2020_0015_dwq.pdf Region 2 PFAS Study Phase 1 Scope of Work: https://bacwa.org/wp-content/uploads/2020/08/4c-BACWA-PFAS-SOW_20200816.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
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SSS WDR REISSUANCE			
• The State Water Board plans to reissue the SSS WDR in 2021. • They have sought out early stakeholder engagement through outreach to CASA and the Regional Associations, and NGOs. • Goals for the update are: ○ Effective spill response ○ Proactive planning and management ○ Transparent reporting ○ "Feasible and reasonable" regulations - good faith effort to comply - personnel, budget, equipment by governing board	• The State Water Board has identified the following as key issues to be included: ○ Reporting of PSL spills ○ Improvement of CIWQS data quality ○ Study of the impact of exfiltration ○ Updated SSMPs that are more enforceable ○ Potential incentives for well performing systems • CASA provided proposed redlines to the SSS WDR on the text of the SSS WDR, as well as the proposed SSMP outline. They have been meeting with the State Water Board regularly during 2019.	• Comment on draft SSS WDR when available for public comment. The State Water Board has not provided an updated schedule for the anticipated draft.Discuss response to issues such as exfiltration via BACWA's Collection Systems Committee.	SWB SSS WDR page: https://www.waterboards.ca.gov/water_issues/programs/sso/ CASA SSS WDR Redlines: https://bacwa.org/document/sss-wdr-casa-redlines-8-29-18/ CASA SSS WDR MRP Redlines: https://bacwa.org/document/casa-sss-mrp-redlines-08-29-18/

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ELAP UPDATE			
• In August 2015, the State Water Board contracted with Southern California Coastal Water Research Project (SCCWRP) to establish and facilitate an Expert Review Panel to conduct an examination of ELAP, California's laboratory certification body. • The Expert Review Panel concluded that ELAP's current regulations are inadequate. The Panel recommended that ELAP adopt the laboratory standard established by The NELAC Institute (TNI) as the most viable option for California. • The Environmental Laboratory Technical Advisory Committee (ELTAC) was established to assist ELAP in technical matters that impact the laboratory community. The committee is composed of representatives from the laboratory community and data users, and have represented the POTW laboratory community during this process. • AB 1438 was signed into law on Sept 28, 2017 and became effective January 1, 2018. The bill sets the stage for ELAP to adopt TNI standards.	• Draft Regulations that included adopting most of the TNI standard for laboratories were released for public comment on October 11, 2019. Minimal revisions were proposed in February 2020 and **regulations were adopted May 2020.** • Adoption of TNI standards poses a challenge since there are more than 1000 individual requirements in the full document. Initial costs may include ○ hiring staff to handle TNI-related paperwork; ○ hiring consultants to setup the TNI documentation framework; ○ purchasing Laboratory Information Management System (LIMS) software; ○ purchasing documents and training material from TNI, etc. • The new standards could be a particular burden on small municipal laboratories, which may choose to close if they cannot economically meet the new standards. • BACWA submitted comments on the draft regulations aimed at improving clarity and implementability of TNI. The comments also addressed the enforcement provisions and lack of due process therein.	• Requirements in the newly-adopted regulations are to be implemented within three years of the regulations effective date. The estimated effective date is October 2020, however, a final date has not yet been set as the regulations has not yet been filed with the Office of Administrative Law. BACWA is tracking these final steps toward effectiveness of regulations. • Continue to work through BACWA's Laboratory Committee to support dischargers and mitigate the burden of the newly-adopted requirements. In June 2020, ELAP staff presented at the Lab Committee meeting. In September, the Committee held a special meeting to discuss information requests in SWRCB ELAP Pre-Assessment letters.	State Water Board's ELAP page: http://www.waterboards.ca.gov/drinking_water/certlic/labs/elap_regulations.shtml BACWA Comment letter on Draft Regulations: https://bacwa.org/wp-content/uploads/2019/12/BACWA-comments-ELAP-Regs-12-20-19.pdf

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PHASE-OUT OF BIOSOLIDS AS ALTERNATIVE DAILY COVER			
• Regulatory drivers are indicating that biosolids used as alternative daily cover (ADC) or disposed in landfills will be phased out: ○ AB 341 set a goal to recycle 75% of solid waste by 2020 and CalRecycle's plan to achieve that goal called for a marked, but unquantified, reduction of organics to landfills. ○ SB 1383, adopted in September 2016 requires organics diversion: -50% by 2020 (relative to 2014) -75% by 2025 (relative to 2014) ○ In 2020, CalRecycle will count green waste as disposal (per AB 1594), rather than diversion, even when used as ADC.	• While the regulations don't explicitly forbid biosolids disposal/reuse in landfills, it is assumed that since biosolids are a relatively "clean" waste stream that can be easily diverted, landfills will stop accepting biosolids. • In the 2018 BACWA Biosolids survey, more agencies reported that they are developing plans for the phase-out than in the 2016 Survey. • The latest draft of proposed regulations was posted on April 20, 2020, with adoption on July 1, 2020. The regulation will become effective in 2022, and enforceable in 2024. Issues of concern are: ○ Diverted biosolids must be anaerobically digested and/or composted to qualify as landfill reduction. ○ Language that would prohibit local ordinances restricting biosolids land application has been softened. ○ Procurement of renewable natural gas for renewable energy generation, use as a low carbon fuel, and pipeline injection has been included in the draft language. Regarding biosolids cake/products, procurement requirements are implied for biosolids compost only. ○ Current regulatory language implies that incineration and surface land disposal sites are "landfills" for accounting purposes.	• Consider ways to build a market for compost and other soil amendment products from biosolids, using lessons learned in the Pacific Northwest and Midwest. • Actively work through CASA with California Air Resource Board, CalRecycle, State Water Resource Control Board, and California Department of Food and Agriculture to mutually develop sustainable long-term options for the beneficial use of biosolids. • Follow efforts of the BABC, investigating all-weather options for biosolids management (including innovative technologies generating energy and other useful bioproducts from biosolids). BABC is a BACWA Project of Special Benefit, beginning in FY20. • Participate in BAAQMD's Methane Expert Panel to educate their staff on how to address implementation of SB 1383 at the Air District level. • Following the release of the next draft regulation, participate in discussions/efforts with CASA and CalRecycle to modify the regulatory language that implies incineration and surface land disposal sites are landfills.	BACWA 2016 Biosolids Trends Survey Report: https://bacwa.org/wp-content/uploads/2017/08/BACWA-2016-Biosolids-survey-report.pdf 2018 BACWA Biosolids Survey: https://www.surveymonkey.com/r/7Q3PDY9 CASA White Paper on Biosolids Use in Landfills: https://bacwa.org/wp-content/uploads/2017/01/1-11-17-Sustainability-for-biosolids-use-at-landfills.pdf BABC website: http://www.bayareabiosolids.com/ CASA Comments on proposed SB 1383 Implementation Regulation: https://bacwa.org/wp-content/uploads/2019/09/7-17-19-CASA-Comments-SB-1383-Regs3.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
CLIMATE CHANGE MITIGATION			
• CARB's Climate Change Scoping Plan Update lays out the approach for the State to meet its greenhouse gas (GHG) emissions reduction targets through 2030, including additional policies to achieve 40% reduction below 1990 levels by 2030: ○ Short-lived climate pollutants (i.e., methane) ○ Carbon sequestration on Natural and Working Lands ○ Largest emitters (transportation, electricity, and industrial sectors) • SB 1383 (Short-Lived Climate Pollutant Reduction) calls for: ○ 40% methane reduction by 2030 ○ 75% diversion of organic waste from landfills by 2025 ○ Policy and regulatory development encouraging production/use of biogas • BAAQMD developed a Clean Air Plan that requires GHG emissions reduction on track with CARB's 2030 and 2050 targets. • BAAQMD has proposed the development of Regulation 13 (climate pollutants) targeting GHG emission reductions related to organics diversion and management.	• CARB states POTWs are part of the solution for reducing fugitive methane, and encourages diversion of organics to POTWs to use excess digester capacity and produce biogas. However, diversion also increases biosolids, which also need to be diverted from landfills. • Many POTWs are exploring energy generation, but BAAQMD TAC regulations could make such programs more difficult to implement. Direct injection of biogas to PG&E's pipelines or use as a transportation fuel may be more efficient. OSHA's PSM Standards, triggered by use of biogas offsite (if managing over 10k lbs of biogas onsite), may cause pipeline injection to be cost-prohibitive. CalOSHA has verbally agreed with scenarios exempt from PSM standards. • CARB's previous interest in nitrous oxide emission estimates and/or emission factors for POTWs has shifted to toxic air contaminants. See BAAQMD Rule 11-18. • BAAQMD is developing a suite of Rules under Regulation 13 for climate pollutants methane and nitrous oxide ○ Rule 13-1 (significant methane releases) - Postponed indefinitely in favor of source specific rules. ○ Rule 13-2 (organic material handling) – Postponed indefinitely to develop Rules 13-3 and 13-4. ○ Rule 13-3 (composting operations) and Rule 13-4 (anaerobic digestion and sewage treatment) – Suspended due to COVID-19.	• Work with CASA to look for opportunities for POTWs to help the State meet GHG reduction goals. • Look for opportunities to inform BAAQMD on the opportunities and challenges for climate change mitigation by Bay Area POTWs. • Work with PG&E and BAAQMD to explore options for POTWs to inject biogas into PG&E pipelines. Note: CASA has been discussing the barriers to pipeline injection with CPUC staff and they have proposed reducing their standard from 990 Btu/scf to 970 Btu/scf. • Engage in development of Regulation 13 Rules, which are intended to govern climate pollutants, odors, VOCs and TACs from POTWs and anaerobic digesters. Continue to work with BAAQMD staff to provide information and education about anaerobic digesters and POTW operations. Participate in the Methane Expert Panel and the Organic Recovery Technical Working Group, as well as comment on draft Rules.	Climate Change Scoping Plan: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf CARB Short Lived Climate Pollutant Reduction Strategy: https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf SB 1383: http://www.leginfo.ca.gov/pub/15-16/bill/sen/sb_1351-1400/sb_1383_bill_20160919_chaptered.htm BAAQMD Clean Air Plan: http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans BAAQMD Regulation 13 http://www.baaqmd.gov/rules-and-compliance/rules/regulation-13-climate-pollutants BACWA Comments on Regulation 13: https://bacwa.org/wp-content/uploads/2019/07/BACWA-AIR_FINAL_Comment-Letter_Regulation13_Rules_24_071219.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
CLIMATE CHANGE ADAPTATION			
• In 2017, the State Water Board adopted a Climate Change Resolution addressing mitigation and adaptation. One of the requirements is that Regional Water Boards will make recommendations to the State Water Board on the need to modify permits and other regulatory requirements to reduce vulnerability of water and wastewater infrastructure to flooding, storm surges, and sea level rise. • The Regional Water Board identified Climate Change and Wetland Policy Update as the highest priority Basin Planning project in their 2018 Triennial Review. • In April 2019, Governor Gavin Newsom signed Executive Order N-10-19 directing State Agencies to recommend a suite of priorities and actions to build a climate-resilient water system and ensure healthy waterways through the 21st century.	• The State Water Board is planning a data request that they will send to all permitted facilities (collection systems and POTWs) in the State to better understand to what extent agencies are performing climate change vulnerability assessments and/or investing in adaptation measures. They plan to use this information to determine the need for funding assistance or permit requirements for climate change planning. • The Regional Water Board hosted a workshop on its Wetlands Policy 94-086 on August 14 and solicited stakeholder input on potential revisions to the Policy. • BACWA provided the Regional Water Board staff specific case studies of wetlands projects that are being considered as well as written comments regarding Policy revisions that would help incentivize the development of wetlands projects by wastewater agencies, and reduce permitting hurdles.	• Continue to coordinate with State Water Board on the status of their data request on climate change planning, so members can provide the information they request as effectively as possible. Survey expected to be release at the beginning of 2021. • Continue to work with Regional Water Board to look for regulatory solutions to encourage wetlands projects for shoreline resiliency. • BACWA to review Governor's Water Resilience Portfolio initiative, released in 2020.	State Water Board 2017 Climate Change Resolution: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2017/rs2017_0012.pdf Regional Water board Wetlands Policy Page: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/climate_change/wetland_policies.html BACWA Comments on Wetlands Policy: https://bacwa.org/wp-content/uploads/2018/09/BACWA-comments-Wetland-Policy-9-14-18.pdf Governor's Final Water Resilience Portfolio: http://waterresilience.ca.gov/ BACWA Comments on Resilience Portfolio: https://bacwa.org/wp-content/uploads/2019/10/BACWA-Water-Resilience-Portfolio-10-01-19.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
TOXIC AIR CONTAMINANTS - BAAQMD RULE 11-18 AND AB 617			
• Regulation 11, Rule 18 (Rule 11-18), adopted November 15, 2017, is BAAQMD's effort to protect public health from toxic air pollution from existing facilities, including POTWs. • Per the Rule, BAAQMD will use toxic emissions inventories and proximity to the nearest receptor (residents or offsite workers) to conduct site-specific Health Risk Screening Analyses (HRSA). From HRSAs, BAAQMD will determine each facility's prioritization score (PS). BAAQMD will conduct Health Risk Assessments (HRAs) for all facilities with a cancer PS>10 or non-cancer PS>1.0. After verifying the model inputs, if the facility still has PS above that threshold, that facility would need to implement a Risk Reduction Plan that may include employing Best Available Retrofit Control Technology for Toxics (TBARCT). • AB 617 (Community Air Protection Program) – requires CARB to harmonize community air monitoring, reporting, & local emissions reduction programs for CAPs and TACs (and GHGs). Oakland and Richmond. POTWs within these communities may have to accelerate implementation of risk reduction measures.	• BACWA developed a White Paper on the BAAQMD Rule to describe its potential impacts on the POTW community. • In response to a request by BAAQMD, the AIR Committee delivered a letter report summarizing specific challenges that POTWs would face in complying with the rule due to budgeting and planning constraints related to being public agencies. • In response, BAAQMD moved all POTWs to Phase 2 to give sufficient time to update the model's inputs, and plan for emissions reduction or TBARCT, as needed. **Phase 2 begins in 2020** with data collection and verification, followed by the development of HRAs for facilities with a cancer PS>10 or non-cancer PS>1.0. Implementation of the Rule for Phase 2 facilities will be spread out over two years depending on the prioritization score. • AIR Committee gathered data on proximity factors from each facility and submitted to BAAQMD for updating prioritization scores, which will be use in HRA development. • Best Available Retrofit Control Technology (BARCT) Implementation Schedule for industrial Cap-and-Trade facilities was adopted by BAAQMD's Board of Directors at a public hearing on December 19, 2018.	• **Priority: Agencies should use the tool developed by the AIR Committee's Emissions Inventory Subcommittee to address emission contributions from influent flows, which will be used to update emissions inventory values.** • **Respond to BAAQMD data request in 2020. There will be a 60-day turn-around to comply with the data request.** • Track both AB 617's regulation development and expansion of the toxics compound list under AB 2588's Air Toxics Hot Spots Program. Draft regulatory language under AB 617 stated all uncovered POTWs >5 MGD and covered (primary) POTWs >10 MGD must monitor and report all compounds listed under AB 2588. The language had been temporarily removed, but 2020 amendments propose bringing the language back. CARB has agreed to give the wastewater sector time to develop a short-list of relevant compounds and perform a pooled emissions estimating effort to update outdated default emission factors (through 2026). CASA has a subgroup dedicated to this effort. Results could inform Rule 11-18 HRA's.	BAAQMD Rule 11-18 page: http://www.baaqmd.gov/rules-and-compliance/rule-development/rules-under-development/regulation-11-rule-18 Rule 11-18 Process Flowchart: https://bacwa.org/document/baaqmd-11-18-process-flowchart-08-17-17/ BACWA White Paper: https://bacwa.org/wp-content/uploads/2017/01/11-18-White-Paper_final-2.pdf BAAQMD page on AB 617: http://www.baaqmd.gov/rules-and-compliance/rule-development/barct-implementation-schedule CARB page on AB 617: https://ww2.arb.ca.gov/our-work/programs/criteria-and-toxics-reporting/ctr-regulation CARB page on AB 2588: https://ww3.arb.ca.gov/ab2588/2588guid.htm

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
RECYCLED WATER GENERAL ORDER			
• In response to the Governor's proclamation of a Drought State of Emergency, the State Water Board adopted a General Order on June 3, 2014 to streamline permitting for recycled water. The State Water Board reissued the General Order on June 7, 2016, making enrollment mandatory for Regional Permittees. • In May 2018, the State Water Board released Recycled Water Policy Amendments for Public Comment. The Recycled Water Policy governs the Recycled Water General Order. • The Amendments were adopted in December 2018.	• Key issues in the Recycled Water Policy Amendments are: ○ Introduces goal to increase recycled water where wastewater is otherwise discharged to ocean, bays, and estuaries. ○ Terminates Region 2 96-011 Recycled Water General Order three year after Policy Amendment adoption (April 2020). ○ Adds to the procedural burdens in obtaining Wastewater Change Petition. ○ Removes requirement for priority pollutant monitoring. • On April 8, 2020, SF Regional Water Board transitioned 96-011 permittees to the State General Order by issuing a NOA and modified MRP. BACWA had previously provided comments on the draft NOA and MRP documents. All permittees were transitioned with the exception of City of Livermore, Delta Diablo, Napa Sanitation, and SASM who have older Title 22 Engineering Reports; they will be enrolled at a later date following a review by DDW.	• Support member agencies as they implement new monitoring and reporting requirements. • BACWA Recycled Water Committee continues to collaborate with Regional Water Board staff. Recently, Committee leaders were invited to the give an update to Regional Water Board members on the transition to the General Order as well as recycled water projects and activities in the SF Bay area.	2016 State Recycled Water General Order: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2016/wqo2016_0068_ddw.pdf State Recycled Water Policy Amendment Page: https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/index.html#amendment BACWA comments on Recycled Water Policy Amendments: https://bacwa.org/wp-content/uploads/2018/06/BACWA-RW-Policy-comments-6-26-18.pdf State Water Board 2001 Engineering Report Guidelines: https://bacwa.org/wp-content/uploads/2019/09/Engineering-Report-Preparation-Guidelines.pdf

"Parking lot" issues with no updates can be found in previous BACWA issues summaries.

ACRONYMS

ADC	Alternate Daily Cover
BAAQMD	Bay Area Air Quality Management District
BTU/SCF	British thermal units per standard cubic foot
CARB	California Air Resources Board
CASA	California Association of Sanitation Agencies
CAP	Criteria Air Pollutant
CEC	Compound of Emerging Concern
CIWQS	California Integrated Water Quality System
CVCWA	Central Valley Clean Water Agencies
CWEA	California Water Environment Association
EC25/IC25	25% Effect Concentration/25% Inhibition Concentration
ELAP	Environmental Laboratory Accreditation Program
ELTAC	Environmental Laboratory Technical Advisory Committee
EPA	United States Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FY	Fiscal Year
GHG	Greenhouse Gas
HRSA	Health Risk Screening Analyses
HRA	Health Risk Assessment
MCL	Minimum Contaminant Level (Drinking Water)
NACWA	National Association of Clean Water Agencies
NELAC	National Environmental Laboratory Accreditation Conference
NL	Notification Level
NWP	Nutrient Watershed Permit
PCB	Polychlorinated Biphenyl
POTW	Publically Owned Treatment Works
PS	Prioritization Score
QMS	Quality Management System
RL	Reporting Level
RMP	Regional Monitoring Program
RPA	Reasonable Potential Analysis
SCAP	Southern California Alliance of POTWs
SF Bay	San Francisco Bay
SFEI	San Francisco Estuary Institute
TAC	Toxic Air Contaminant
TMDL	Total Maximum Daily Load
TIN	Total Inorganic Nitrogen
TNI	The NELAC Institute
TST	Test of Significant Toxicity
WQBEL	Water Quality Based Effluent Limitation
WQO	Water Quality Objective

ITEM NO. RA9 MOTION AUTHORIZING THE GENERAL MANAGER TO EXECUTE A WORK ORDER WITH LARRY WALKER ASSOCIATES FOR A DILUTION STUDY RELATED TO ACCEPTANCE OF CARGILL MIXED SEA SALT BRINE FOR DISCHARGE AT THE EBDA OUTFALL IN THE AMOUNT OF $56,617

Recommendation
Approve a motion authorizing the General Manager to execute a Work Order with Larry Walker Associates in the amount of $56,617.

Background
At its July 2020 meeting, the Commission approved a non-binding Term Sheet with Cargill, Incorporated (Cargill) to jointly develop a project to introduce mixed sea salt (MSS) brine from Cargill's Newark facility into EBDA's system for discharge to San Francisco Bay. At its August 2020 meeting, the Commission approved a scope for Larry Walker Associates (LWA) to provide technical expertise on regulatory issues related to the brine project as part of the due diligence phase. LWA will assist the Authority in ensuring that the project does not present challenges to consistent compliance with the Authority's NPDES permit, and LWA's fees will be reimbursed by Cargill. LWA's scope under the approved contract includes review of technical issues and participation in meetings, but it does not include any new studies.

Discussion
As noted in last month's staff report, there were several due diligence tasks that required additional scoping and were therefore not included in the approved contracts. One of those was a dilution study to assess the impacts of brine on mixing at the Authority's outfall.

EBDA's NPDES permit includes a requirement to operate and maintain its outfall to ensure a minimum initial dilution of 79:1 (ratio after mixing in the receiving water). This dilution factor is applied to water quality criteria to establish the Authority's effluent limits, including ammonia. In the future, this dilution factor will also likely be applied to establish limits for chronic toxicity and total chlorine residual. The current 79:1 factor was determined through a dilution and mixing zone study conducted in 2006.

When EBDA staff and Cargill held a meeting with Regional Water Quality Control Board (Regional Water Board) staff to introduce them to the brine project, RWB staff was supportive of the project overall and did not identify any red flags. The one information gap they identified was the need for a new dilution and mixing zone study to establish whether the changes in density of the effluent associated with the addition of brine would change the dilution factor.

In the Due Diligence scope Authority staff previously provided to Cargill and the Commission, the dilution study was shown as an optional task to be completed if requested by the Regional Water Board and to be performed by Resource Management Associates (RMA). Based on subsequent discussions with RMA and LWA, Cargill and EBDA staff have determined that it is prudent to move forward at this time in advance of a formal request from the Regional Water Board. Staff further recommends that LWA take the lead. LWA will use RMA as a subcontractor to provide model parameters associated with conditions in the Bay. LWA recently performed similar mixing zone and dilution studies for Delta Diablo in support of their acceptance of City

of Antioch desalination brine, and for East Bay Municipal Utility District in support of their recent NPDES permit renewal. LWA is also familiar with the brine project through their work providing regulatory advice.

Per the attached letter, Cargill will reimburse the Authority for costs incurred associated with this LWA work order, including a 5% markup, consistent with other due diligence tasks.

1480 Drew Ave, Suite 100
Davis, CA 95618

530.753.6400
530.753.7030 fax

www.lwa.com

LARRY WALKER ASSOCIATES

September 4, 2020

Jacqueline Zipkin, P.E.
General Manager
East Bay Dischargers Authority
2651 Grant Avenue
San Lorenzo, CA 94580

By Email: jzipkin@ebda.org

Subject: Proposal for Services – Mixing Zone and Dilution Credit Study for the East Bay Dischargers Authority Outfall Diffuser (September 1 to December 31, 2020)

Dear Jackie:

Larry Walker Associates (LWA) is providing the following proposal to determine available dilution at the East Bay Dischargers Authority (EBDA) outfall diffuser. Cargill, Incorporated (Cargill) is developing a project to enhance recovery of Mixed Sea Salts (MSS) for additional product value and dissolve the residual MSS solids in Bay water for discharge to the EBDA wastewater system. EBDA and Cargill are currently developing an agreement for conveyance and disposal of the MSS brine in compliance with provisions specified in the EBDA Common Outfall NPDES permit No. CA0037869 (currently implemented as Order No. R2-2017-0016). Under this proposal, LWA and its subconsultant (RMA) will conduct a near-field dilution study to evaluate available dilution under representative discharge scenarios with the addition of MSS brine. The results of the study will be used to determine applicable dilution credits and to delineate regulatory mixing zones associated with initial dilution from the diffuser.

The NPDES permit includes a requirement for EBDA to operate and maintain its common outfall to ensure a minimum initial dilution of 79:1 (ratio after mixing in the receiving water). The 79:1 requirement was determined in 2006 by conservative dilution modeling conducted for a future, higher flowrate that is not currently permitted. Initial dilution is expected to change when modeling is conducted using updated EBDA effluent flowrate projections, representative receiving water characteristics, and the addition of MSS brine.

Scope of Services

LWA proposes to conduct a Mixing Zone and Dilution Credit Study to assist EBDA in determining appropriate dilution credits that reflect: (1) actual dilution that occurs in the Lower San Francisco Bay under varying conditions of tides and Delta outflow, (2) acute and chronic conditions for aquatic life criteria (e.g., ammonia), as well as

chronic toxicity testing conditions, and (3) effective and reasonable protection of the applicable beneficial uses in accordance with state and federal laws.

Task 1 – Establish Parameters for Near-Field Dilution Analysis

LWA will generate input values representing ambient conditions for the near-field modeling effort described under Task 2. This modeling approach is more cost-effective than completing a dye tracer study and is defensible based on past studies accepted by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board). LWA will subcontract with RMA to utilize representative depth averaged tidal velocities in the vicinity of the EBDA outfall computed by RMA's Bay model. Velocities extracted from existing model simulation results performed for the Oro Loma Sanitary District deemed most representative of dry weather conditions will be provided. The use of non-zero ambient velocity can greatly increase ambient dilution estimates.

The following additional information will either be obtained from EBDA and Cargill or downloaded from online sources:

- Outfall/diffuser plans,
- EBDA contract requirements for outfall use,
- Recent effluent flowrates,
- Ambient density and stratification data,
- Recent effluent and MSS brine data to determine combined effluent density (i.e., salinity, total dissolved solids, electroconductivity), and
- Up to four (4) discharge flow scenarios. The scenarios are expected to include the discharge of EBDA effluent without MSS brine and combinations of EBDA effluent blended with MSS brine.

Any additional information or other details found to be necessary, will be requested by LWA as applicable.

Task 2 – Evaluate Near-Field Dilution

Near-field dilution will be evaluated through use of the Cornell Mixing Zone Expert System (CORMIX) plume model following USEPA guidance[1,2]. CORMIX is a model developed by Cornell University under contract with USEPA and has been used in Regional Water Board-approved dilution studies in the San Francisco Bay (e.g., North Bayside System Unit, Delta Diablo) and the Central Valley (e.g., Yuba City and Manteca). At EBDA's option, the plume modeling could be performed using VISUAL PLUMES, another USEPA-approved model. LWA will perform the plume modeling using diffuser design information and effluent flowrate information furnished by the EBDA and Cargill. Input data on bathymetry, current velocities, and ambient density

[1] U.S. EPA, *Technical Guidance Manual for Performing Waste Load Allocations Book III: Estuaries; Part 3, Use of Mixing Zone Models in Estuarine Waste Load Allocations*, EPA-80.-R-92-004, August 1992.
[2] U.S. EPA, *Technical Support Document for Water Quality-based Toxics Control*, EPA/505/2-90-001, March, 1991

will be determined from RMA modeling and knowledge of the San Francisco Bay. As requested, RMA will provide consultation and review of ambient data and modeling results to evaluate stratification conditions that may be appropriate for dilution modeling.

LWA will model up to four (4) discharge scenarios using different input parameters (e.g., effluent/MSS brine flowrates, density characteristics, Delta outflow conditions, tidal velocities, averaging periods, etc.) to determine representative dilution credits and mixing zone characteristics at the EBDA outfall diffuser. The Regional Water Board typically requires a Mixing Zone and Dilution Credit Study conducted under the following discharge conditions to support representative dilution credits:

- Acute Criteria (e.g., ammonia effluent limits) – Maximum flowrate of discharge, average tidal velocity 30 minutes before/after slack tide
- Chronic Criteria (e.g., ammonia effluent limits) – Average dry weather flowrate of discharge, median tidal velocity
- Chronic Toxicity Criterion (i.e., Instream Waste Concentration for chronic toxicity testing) - Maximum 4-day average flowrate of discharge, lowest 4-day average tidal velocity

The discharge scenarios and the representative discharge conditions will be developed through discussions with EBDA and Cargill. After the scenarios are identified, LWA will simulate near-field dilution under the selected discharge conditions and identify the associated near-field dilution and mixing zone characteristics (i.e., distance from diffuser, plume area, travel time). The results from the different scenarios will indicate the sensitivity of effluent dilution to varying conditions and averaging periods. The information will be used to formulate findings regarding dilution values that should be used in the derivation of effluent limits based on acute criteria, chronic criteria, and chronic toxicity test conditions.

Task 3 – Prepare Mixing Zone and Dilution Credit Study Technical Memorandum

The results of Tasks 1 and 2 will be summarized in a draft Technical Memorandum for the selected, representative discharge scenarios. Effluent limits for the constituents of concern will be determined using methodologies employed by the Regional Water Board in recent NPDES permits and the proposed State Toxicity Provisions[3]. A draft memorandum will be submitted to EBDA and Cargill for review and comment. After review, LWA will participate in a meeting with EBDA and Cargill to discuss the study results, resolve any outstanding comments, and determine the approach for finalizing the memorandum for submittal to the Regional Water Board. The final memorandum will be of sufficient length and detail to explain the near-field modeling process and provide support for the recommended dilution credits to be included in the reissued NPDES permit.

[3] State Water Resources Control Board, *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, July 7, 2020

Estimated Costs and Schedule

The estimated costs for the Mixing Zone and Dilution Credit Study are presented in **Table 1**. The costs shown include labor and other direct costs for LWA and subcontractor costs for RMA services. Labor costs for LWA staff are based on the hourly rate schedule in effect from July 1, 2020 through June 30, 2021. If requested, the incremental cost for modeling additional discharge scenarios is $1,000 per scenario.

The proposed schedule is outlined below.

- Develop scenarios and discharge conditions to be modeled – October 5, 2020
- Preliminary modeling results – October 19, 2020
- Draft memorandum– November 2, 2020
- Meet to discuss draft memorandum – Week of November 16, 2020
- Final memorandum – December 14, 2020

Table 1. Estimated Costs for Mixing Zone and Dilution Credit Study for the EBDA Outfall Diffuser

Task No.	Description	LWA Labor	Other Direct Costs[(a)]	Total Costs
1	Establish Parameters for Near-Field Dilution Analysis	$8,319	$3,960	$12,279
2	Evaluate Near-Field Dilution	$14,834	$11,616	$26,450
3	Prepare Mixing Zone and Dilution Credit Study Technical Memorandum	$17,888	--	$17,888
	Total	**$41,041**	**$15,576**	**$56,617**

(a) RMA assistance including 10% markup for subconsultant services

Thank you for the opportunity to provide this proposal for services. Please contact me at (530) 753-6400 or denisec@lwa.com if you have any questions or suggested changes to the information presented above.

Sincerely,

Denise H. Conners
Associate

9/9/2020

Ms. Jacqueline Zipkin, P.E.
General Manager
East Bay Dischargers Authority (EBDA)
2651 Grant Avenue
San Lorenzo, CA 94580

Jackie,

We received the scope and cost proposal for EBDA's Mixing Zone and Dilution Credit Study dated September 4, 2020 for Cargill's MSS Discharge Project. Per the previously agreed Term Sheet with EBDA's Commission, Cargill intends to reimburse EBDA for these estimated costs.

Sincerely,

Keith Schuessler
Solar Operations Leader
Assistant Vice President

Cargill, Incorporated
Salt Business

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A Joint Powers Public Agency

Pursuant to the Governor's Executive Order N-25-20 the Operations & Maintenance Meeting scheduled for September 15th at 9:00 a.m. will be telephonic. The dial-in number for the meeting is +1 669 900 6833 with meeting I.D. #858 3905 8196. Members of the public are encouraged to dial in to the meeting using the same number. https://us02web.zoom.us/j/85839058196

ITEM NO. 14

OPERATIONS & MAINTENANCE COMMITTEE AGENDA

Tuesday, September 15, 2020

9:00 A.M.

East Bay Dischargers Authority
2651 Grant Avenue, San Lorenzo, CA 94580

Committee Members: Cutter (Chair); Johnson

OM1. Call to Order

OM2. Roll Call

OM3. Public Forum

OM4. EBDA Performance
(The Committee will be updated on EBDA's NPDES report.)

OM5. Status Report
(The Committee will be updated on EBDA's O&M activities.)

OM6. Adjournment

(Any member of the public may address the Commission at the commencement of the meeting on any matter within the jurisdiction of the Commission. This should not relate to any item on the agenda. It is the policy of the Authority that each person addressing the Commission limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Commission on an agenda item should do so at the time the item is considered. It is the policy of the Authority that oral comments be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available in the Boardroom and are to be completed prior to speaking.)

(In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in an Authority meeting, or you need a copy of the agenda, or the agenda packet, in an appropriate alternative format, please contact the Administrative Assistant at the EBDA office at (510) 278-5910 or juanita@ebda.org. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.)

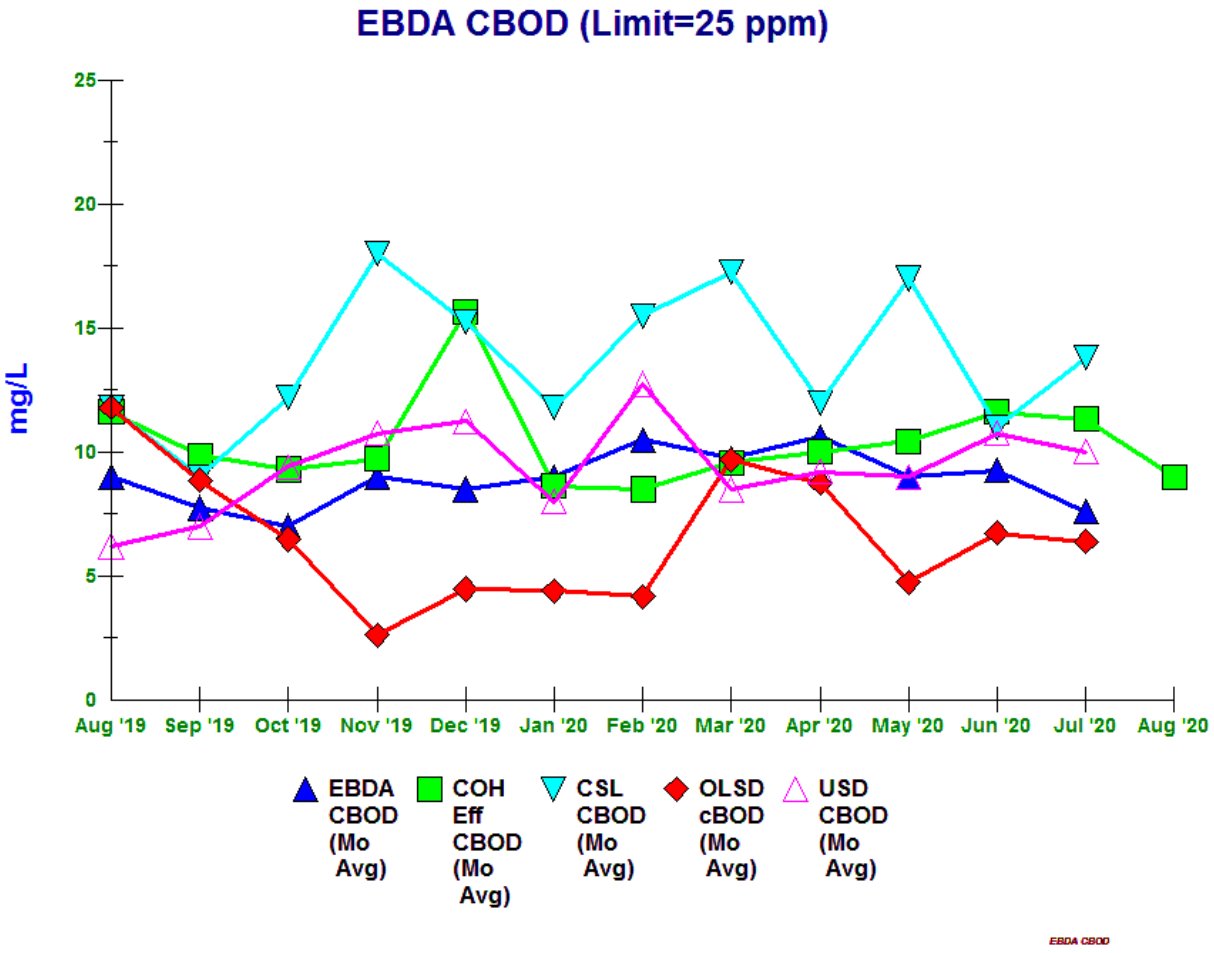
(In compliance with SB 343. related writings of open session items are available for public inspection at East Bay Dischargers Authority, 2651 Grant Avenue, San Lorenzo, CA 94580. For your convenience, agenda items are posted on the East Bay Dischargers Authority website located at http://www.ebda.org.)

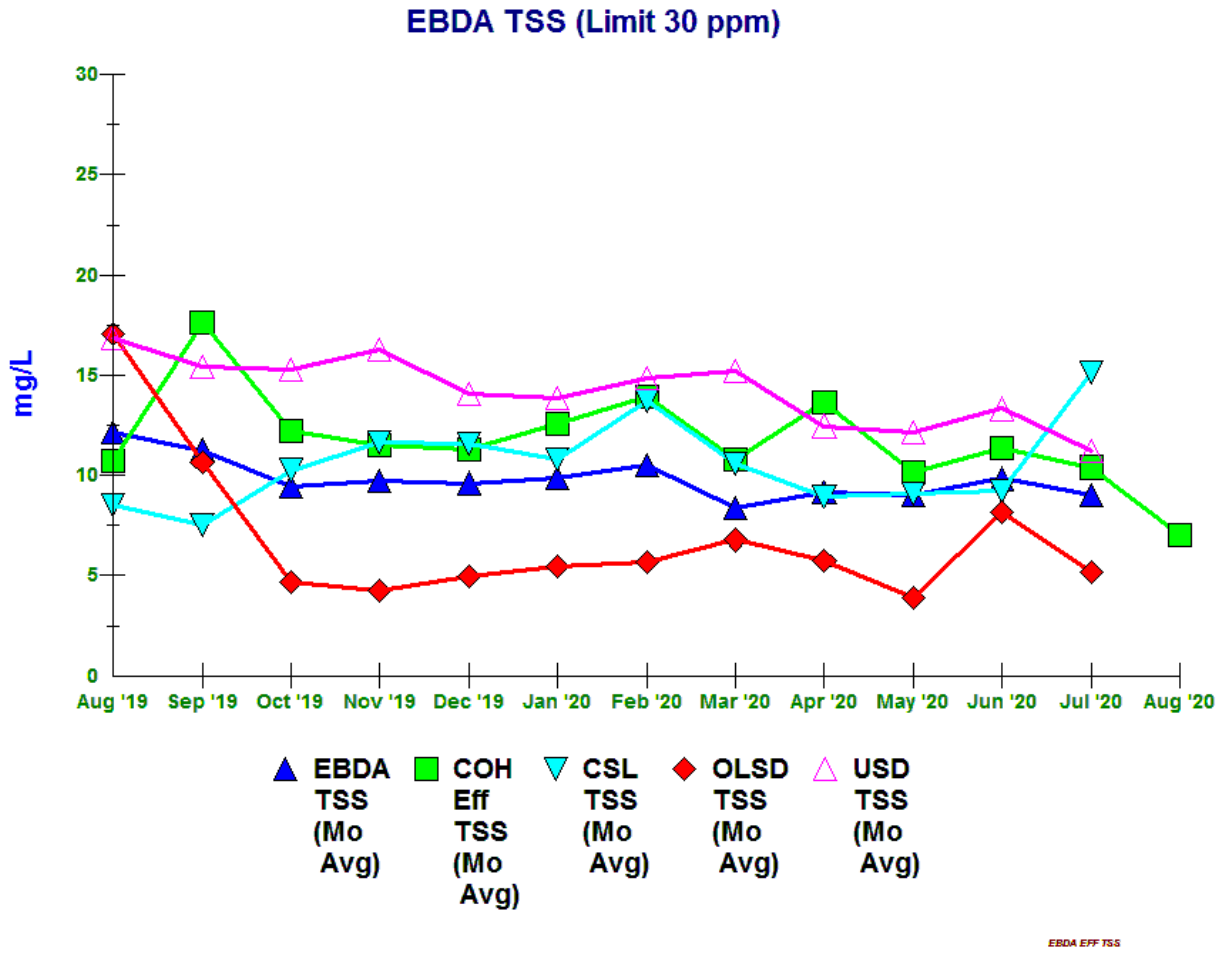
The next O&M Committee meeting will be held
Tuesday, October 13, 2020, at 9:00 a.m.

ITEM NO. OM4 EBDA PERFORMANCE

Recommendation
For the Committee's information only; no action is required.

Permit Compliance Issues
There were no NPDES permit violations in August and preliminary data from September are also free of permit exceedances. Member Agency CBOD and TSS performance are shown below. A table with bacterial indicators is also included. Sodium hypochlorite dosing has been increased as the temperatures have risen to prevent bacterial outbreaks during the summer months. As shown in the table, a high fecal coliform value was detected at the end of July, however, because the limit is based on the 90th percentile and geomean, compliance was not in jeopardy.




EBDA TSS (Limit 30 ppm)
mg/L
30
25
20
15
10
5
0
Aug '19
Sep '19
Oct '19
Nov '19
Dec '19
Jan '20
Feb '20
Mar '20
Apr '20
May '20
Jun '20
Jul '20
Aug '20
EBDA TSS (Mo Avg)
COH Eff TSS (Mo Avg)
CSL TSS (Mo Avg)
OLSD TSS (Mo Avg)
USD TSS (Mo Avg)
EBDA EFF TSS

EBDA Bacterial Indicators

Date	FECAL	ENTERO
	MPN/ 100mL	MPN/ 100mL
Limit (90th Percentile)	1100	
Limit (Geomean)	500	240
September 2019 Geomean	**12**	**3**
October 2019 Geomean	**35**	**2**
November 2019 Geomean	**32**	**2**
December 2019 Geomean	**18**	< **2**
January 2020 Geomean	**6**	**< 2**
February 2020 Geomean	**5**	< **3**
March 2020 Geomean	**8**	< **2**
April 2020 Geomean	**4**	**2**
May 2020 Geomean	**40**	**2**
June 2020 Geomean	**28**	**3**
7/6/2020	10	< 2
7/7/2020	70	< 2
7/8/2020	79	< 2
7/13/2020	12	< 2
7/14/2020	22	2
7/15/2020	13	2
7/20/2020	15	17
7/21/2020	5	< 2
7/22/2020	13	8
7/27/2020	20	< 2
7/28/2020	1600	2
July 2020 Geomean	**27**	**3**
8/3/2020	8	< 2
8/4/2020	41	< 2
8/5/2020	22	2
8/10/2020	7	2
8/11/2020	11	9
8/12/2020	27	6
8/17/2020	89	2
8/18/2020	130	37
8/24/2020	14	< 2
8/25/2020	23	4
8/31/2020	14	< 2
Aug 2020 Geomean	**23**	**3**

ITEM NO. OM5 STATUS REPORT

Union Effluent Pump Station (UEPS – Formerly AEPS)

Effluent Pump No. 2 Variable Frequency Drive (VFD)
On September 24, 2020, Rockwell Automation Field Service is scheduled to install the new VFD transformer for Effluent Pump No. 2 with assistance from USD Maintenance Staff.

Hayward Effluent Pump Station (HEPS)

Motor Control Center (MCC) Replacement Project
This project is substantially complete, and staff and the contractor are currently processing the paperwork to finalize the project. A ribbon-cutting ceremony will be held when it is safe to hold in-person events.

Oro Loma Effluent Pump Station (OLEPS)

Wet Well Hypochlorite (Hypo) System
This project will allow for automatic control of hypo to the OLEPS wet well, reducing the cost of hypo, sodium bisulfite (SBS), and staff time. On July 30, 2020, a project kick-off meeting and site visit for the project was held and attended by EBDA, OLSD, and Calcon Systems, Inc. (Calcon). Calcon is in the process of procuring product information for the equipment that will be installed. Prior to purchase, OLSD staff will have an opportunity to review and comment on the selected equipment.

Main Electrical Switchboard Upgrade
As part of the Renewal and Replacement Fund (RRF) project list for FY 2020/2021, the Commission approved $260,000 for the replacement of the breakers and refurbishment of the main switchboard, and installation of two new automatic transfer switches (ATS's). Replacement of the 75 kW generator is also included and will be evaluated further as the project proceeds. These upgrades will improve the electrical reliability of the station, particularly in the event of a power outage.

Beecher Engineering, Inc., EBDA's contract electrical engineering firm, produced single-line drawings and a draft scope of work for the OLEPS main electrical switchboard upgrade project. EBDA staff received two quotes for the switchboard upgrade and will be discussing the project at this month's MAC meeting. A motion will be presented to the Commission pending the outcome of the MAC meeting discussion.

Paving Repair/Upgrade
OLSD is starting their Pavement Reconstruction and Rehabilitation Project. As part of that project, the asphalt behind OLEPS next to the 8,000 gallon above-ground diesel storage tank will be replaced. In the interest of matching the rest of the plant, EBDA has requested a quote for additional paving around OLEPS, specifically to the east and west of the pump station.

San Leandro Effluent Pump Station (SLEPS)

No change; all equipment is operational.

Skywest Pump Station

Recycled Water Production
During the month of August 2020, the Skywest Recycled Water System only operated two days and produced 1.09 million gallons of recycled water.

Recycled Water Pipeline Leak
An insurance claim was filed for reimbursement of the costs associated with the Skywest recycled water pipeline leak and the embankment repair. On August 7, 2020, a meeting/site visit was conducted with EBDA, OLSD, and the Claims Examiner. The Claims Examiner noted that the claim documentation was complete and that he would request authority from the CSRMA Executive Board to approve the claim. The next CSRMA Executive Board meeting at which this claim can be considered is October 2, 2020.

Marina Dechlorination Facility (MDF)

No change; all equipment is operational.

Force Main

Transport System Repair Coupling & Seals
Under the Amended and Restated Joint Powers Agreement (JPA), Member Agencies will be taking responsibility for failures on the segments of the force main they use. As part of the negotiations, the Authority agreed to purchase encapsulating couplings and flexible internal seals that can be used to repair the force main in the event of a failure to mitigate that increased risk. In the Draft Transport System Seismic Reliability Plan, Brown & Caldwell recommended procurement of 48-inch and 60-inch encapsulating repair couplings for the San Leandro and Union/Hayward segments of the force main, respectively. San Leandro requested that in lieu of purchasing the 48-inch encapsulating coupling on their behalf, the Authority credit the City for the dollar value associated with the coupling. The 60-inch encapsulating coupling was ordered and is scheduled to ship at the end of October.

Operations Center

No change; all equipment is operational.

Miscellaneous Items

Underground Service Alerts

EBDA received twenty-nine (29) Underground Service Alert (USA) tickets during the month of August 2020. Two required field verification.

COVID-19 Response

Authority staff is continuing to implement the Pandemic Response Plan, which includes staff working from home and alternating time in the office to ensure social distancing. Signage regarding closure of the office to the public and the Authority's social distancing measures has been posted on the office door. All meetings are being conducted by phone and web conference until further notice.

Staff is also continuing to track research efforts utilizing data on the prevalence of SARS-CoV-2 virus in wastewater influent to identify and anticipate COVID-19 community trends, termed wastewater-based epidemiology. Researchers at UC Berkeley have secured foundation funding to develop a pop-up lab that can process 100 samples per day starting in September. They are still working to identify funding for the sample analysis, which they estimate at $200/sample. A Working Group has been created to inform regional efforts and ensure coordination. The group includes representatives from UC Berkeley, Stanford, county public health offices, and wastewater treatment plants, coordinated by the Bay Area Clean Water Agencies (BACWA). Coordination on concepts and funding also continues with state and federal agencies including the California Department of Public Health (CDPH), US Environmental Protection Agency (EPA), and US Centers for Disease Control (CDC) through the California Association of Sanitation Agencies (CASA). CASA and a long list of associations and university researchers also submitted letters to the Rockefeller Foundation and the Gates Foundation requesting funding support for sewage surveillance efforts nationally.

Special Projects

Advanced Quantitative Precipitation Information (AQPI) Project

The regional AQPI project to improve prediction of rainfall events in the Bay Area continues to move forward. The Cooperative Agreement for installation of the X-band radar in the East Bay has been approved by the East Bay agencies, but approval by Sonoma County Water District (Sonoma Water), the implementing agency, was slowed by the COVID-19 emergency. Sonoma Water is expected to approve the East Bay agreement, as well as the lease agreement with American Tower for the site, in September. Installation of the X-band at Rocky Ridge is still estimated for this Fall but may slip. A Working Group has been formed to develop a media outreach plan associated with the installation.

ITEM NO. 15 ITEMS FROM THE COMMISSION AND STAFF

The Commission and staff may comment on items of general interest.

ITEM NO. 16 ADJOURNMENT