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

COMMISSION MEETING AGENDA

Thursday, October 17, 2019

9:30 A.M.

Oro Loma Sanitary District
2655 Grant Avenue
San Lorenzo, CA 94580

1. **Call to Order**
2. **Pledge of Allegiance**
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 September 19, 2019**
6. **Commission Workshop Minutes of October 8, 2019**
7. **List of Disbursements for September 2019**
8. **Treasurer's Report for September 2019**
9. **Fourth Quarter Expense Report, FY 18/19**

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

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

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

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

RESOLUTION
13. **Resolution Extending the Authority's Master Agreement with Livermore-Amador Valley Water Management Agency for a Period not to Exceed One Year**
(The Commission will consider a resolution approving the extension.)

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

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

Agenda Explanation
East Bay Dischargers Authority
Commission Agenda
October 17, 2019

MOTION **16. Report From the Operations & Maintenance Committee**
(The General Manager will report on the meeting.)

MOTION **17. Report From the Personnel Committee**
(The General Manager will report on the meeting.)

INFORMATION **18. Items From the Commission and Staff**
(The Commission and staff may address items of general interest.)

19. 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.)

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The next Commission meeting will be held
Tuesday, October 29, 2019 at 3:00 p.m.

GLOSSARY OF ACRONYMS

ACWA	Association of California Water Agencies
AQPI	Advanced Quantitative Precipitation Information
AEPS	Alvarado Effluent Pump Station
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
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
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
N	Nitrogen
NACWA	National Association of Clean Water Agencies
NAS	National Academy of Sciences
NGO	Non-Governmental Organization
NOX	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	Non-Point Source
NTR	National Toxics Rule
O&M	Operations & Maintenance

GLOSSARY OF ACRONYMS

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
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
SIP	State Implementation Policy (CTR/NTR criteria)
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
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 September 19, 2019
Item No. 6 Commission Workshop Minutes of October 8, 2019
Item No. 7 List of Disbursements for September 2019 – See Item FM4
Item No. 8 Treasurer's Report for September 2019 – See Item FM5
Item No. 9 4th Quarter Expense Summary for FY 18/19 – See Item FM6

Recommendation

Approve Consent Calendar Items No. 5, 6, 7, 8, and 9.

ITEM NO. 5 COMMISSION MEETING MINUTES OF SEPTEMBER 19, 2019

EAST BAY DISCHARGERS AUTHORITY
COMMISSION MEETING MINUTES

September 19, 2019

1. Call to Order

Chair Walters called the meeting to order at 9:30 A.M. on Thursday, September 19, 2019, at the Oro Loma Sanitary District Boardroom, 2655 Grant Avenue, San Lorenzo, CA 94580.

2. Pledge of Allegiance

3. Roll Call

PRESENT:	Al Mendall	City of Hayward
	Thomas Handley	Union Sanitary District
	Ralph Johnson	Castro Valley Sanitary District
	Dan Walters	Oro Loma Sanitary District
ABSENT:	Pauline Cutter	City of San Leandro

OTHERS PRESENT:

Jacqueline Zipkin	East Bay Dischargers Authority
John Bakker	Legal Counsel
Howard Cin	East Bay Dischargers Authority
Kalena Yambao	East Bay Dischargers Authority
Alex Ameri	City of Hayward
Jan Lee	City of Hayward
Paul Eldredge	Union Sanitary District
Justin Jenson	City of San Leandro
Roland Williams	Castro Valley Sanitary District

4. Public Form

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 August 15, 2019
6. List of Disbursements for August 2019
7. Treasurer's Report for August 2019

Commissioner Johnson moved to approve the consent calendar. The motion was seconded by Commissioner Mendall and carried 3-0 (Mendall, Johnson, Walters; ayes, one absent, Handley; abstention).

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

8. General Manager's Report

The General Manager (GM) gave record of her attendance at the San Francisco Bay Regional Water Quality Control Board meeting, where she represented BACWA on an invited panel providing feedback to the State on the Governor's Water Resilience Portfolio initiative. The GM advocated for permit streamlining and additional funding for water recycling and shoreline resilience projects. The GM also reported on EBDA's submission of a support letter on behalf of Valley Water, formerly Santa Clara Valley Water District, who is seeking federal grants to further research on treatment of reverse osmosis concentrate. The project would include collaborative research with Oro Loma and EBDA at the Horizontal Levee demonstration site. Lastly, the GM updated the Commission on microplastics and reported on EBDA's continued engagement on the issue of microplastics in wastewater. A Fact Sheet will be included in next month's agenda.

9. Report from the Managers Advisory Committee (MAC)

The MAC met with the GM on September 12, 2019. The GM requested to combine the MAC and Ad Hoc reports.

10. Report from the Ad Hoc Committee

The Ad Hoc Committee met with the GM on September 18, 2019. The GM reported that the MAC and Ad Hoc are working on revisions to a JPA draft delivered on September 6th; termination language continues to be discussed. There was discussion amongst the Commission as to whether termination language is necessary to conclude the JPA renewal. The GM reported the next draft will be delivered at the end of the month, with additional discussion continuing until the October 8th JPA Commission Workshop. The Commission recommended EBDA and the Agencies be prepared for a renewal and/or an extension in preparation for all possible outcomes at the October Workshop.

11. Report from the Financial Management Committee

The Financial Management Committee met with the GM on September 16, 2019, and reviewed the August List of Disbursements and Treasurer's Report. The GM discussed the recent migration of Alameda County customers to East Bay Community Energy's electrical service, noting the Committee's recommendation to move EBDA's facilities onto the 100% carbon-free, 40% renewable Brilliant 100 Plan; there was no objection from the Commission. The GM explained the annual CERBT fund statement. For Fiscal Year 18/19, EBDA finished under-budget, and the Committee recommends approval of using the carryover funds towards funding the pension and OPEB liabilities. Additional details on the carryover funds and pension and OPEB liabilities will be presented next month. The Committee also recommends approval of the Pension Policy.

Commissioner Johnson motioned to approve the report from Financial Management and the motion was seconded by Commissioner Mendall and carried unanimously, 4-0 (Mendall, Handley, Johnson, Walters; ayes, one absent).

12. Resolution Adopting the Authority's Pension Funding Policy
Commissioner Handley moved to adopt the resolution adopting the Authority's Pension Funding Policy. The motion was seconded by Commissioner Mendall and carried unanimously, 4-0.

Ayes:	Commissioners Mendall, Handley, Johnson, and Chair Walters
Noes:	None
Absent:	Commissioner Cutter
Abstain:	None

13. Report from the Regulatory Affairs Committee
The Regulatory Affairs Committee met with the GM on September 18, 2019. The GM reviewed the NPDES Status Report, referencing tables showing compliance for CBOD, TSS and bacteria limits, noting construction at Oro Loma as the cause for their increase in TSS, which is still well within regulatory compliance. The GM reviewed the toxicity update report referencing one test sample that did not meet the acute toxicity survival rate minimum. Further testing concluded that the low survival rate was due to the amount of ammonia present during the test. EBDA remains in compliance due to the provision that toxicity shall not constitute a violation as long as levels of ammonia are within regulatory limits. The GM also reviewed a possible new State Water Board toxicity provision that, if adopted, would mandate effluent limits for chronic toxicity; this would be a change from the current effluent limits which are currently only for acute toxicity, with triggers for chronic toxicity. This provision would also change the method in which testing is conducted. If these changes are adopted, they would go into effect for EBDA at the next permit renewal in the year 2022.

Commissioner Mendall moved to approve the report from the Regulatory Affairs Committee. The motion was seconded by Commissioner Johnson and carried unanimously, 4-0 (Mendall, Handley, Johnson, Walters; ayes, one absent).

14. Report from the Operations and Maintenance Committee (O&M)
The Operations and Maintenance Committee met on September 17, 2019, and discussed the status of EBDA facilities. The Operations and Maintenance Manager provided an update on current projects. The HEPS MCC Project now has the majority of the station running on the new system, with the remainder to follow next week; the projected finish date of the project is late next month. The valve replacement project at OLEPS has started. EBDA's electrical engineer has reviewed available back-up power from OLSD and determined that there is sufficient power to supply OLEPS in the event of a power failure. With the approval of the Commission, EBDA will begin installation of an underground connection to OLEPS prior to paving associated with Oro Loma's construction project. New lighting at OLEPS and Skywest have been installed, the Sump Pump Control Panel Upgrade at MDF has been completed, and paving issues affecting drainage at a manhole on the forcemain have been resolved. The new SCADA system continues to be up and running, and three new radios were installed at HEPS, OLEPS, and the Operations Center as part of the Communication System Upgrade.

The Commission also received an update on special projects including the Transport System Reliability Plan and the Facilities Electrical Evaluation. The GM reported the Disaster Recovery Plan has been received, and training for the agencies will take place early next year. The GM gave an update on the AQPI Project; EBDA has a draft of the agreement in hand and the document is undergoing legal review. The GM hopes to bring a final agreement forward this November.

Commissioner Handley moved to approve the report from the Operations & Maintenance Committee. The motion was seconded by Commissioner Mendall and carried unanimously, 4-0 (Mendall, Handley, Johnson, Walters; ayes, one absent).

18. Items from Commission and Staff

No items from Commission and Staff.

19. Adjournment

With no further business, Chair Walters adjourned the meeting at 10:36 A.M.

Jacqueline Zipkin
General Manager

ITEM NO. 6 COMMISSION WORKSHOP MINUTES OF OCTOBER 8, 2019

EAST BAY DISCHARGERS AUTHORITY
COMMISSION WORKSHOP MINUTES

October 8, 2019

1. Call to Order

Chair Cutter called the meeting to order at 9:00 a.m. on Tuesday, October 8, 2019, at the Union Sanitary District Board Room, 5072 Benson Road, Union City, CA 94587.

2. Roll Call

PRESENT:	Ralph Johnson	Castro Valley Sanitary District
	Thomas Handley	Union Sanitary District
	Dan Walters	Oro Loma Sanitary District
	Al Mendall	City of Hayward
	Pauline Cutter	City of San Leandro

ABSENT: None

OTHERS PRESENT:	Alex Ameri	City of Hayward
	Jan Lee	City of Hayward
	Chuck Weir	Livermore-Amador Valley Water Management Agency
	Howard Cin	East Bay Dischargers Authority
	Jacqueline Zipkin	East Bay Dischargers Authority
	Allison Schutte	Hanson Bridgett
	Jason Warner	Oro Loma Sanitary District
	Peter McGaw	Oro Loma Sanitary District
	Jeff Carson	Dublin San Ramon Services District
	Justin Jenson	City of San Leandro
	Paul Eldredge	Union Sanitary District
	Roland Williams	Castro Valley Sanitary District

3. Public Forum

There were no members of the public in attendance at the meeting.

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

4. JPA Renewal Discussion

The Commissioners reviewed key issues for the JPA renewal.

5. Adjournment

With no further business, Chair Cutter adjourned the meeting at 11:12 a.m.

Jacqueline Zipkin
General Manager

ITEM NO. 10 GENERAL MANAGER'S REPORT

The General Manager will discuss items of interest concerning EBDA.

ITEM NO. 11 REPORT FROM THE MANAGERS ADVISORY COMMITTEE

MANAGERS ADVISORY COMMITTEE
AGENDA

Friday, October 4, 2019

2:00 P.M.

East Bay Dischargers Authority
2651 Grant Avenue
San Lorenzo, CA

Discussion 1	**OLEPS Electrical Improvements**
Discussion 2	**Joint Powers Agreement**

ITEM NO. 12 REPORT FROM THE AD HOC COMMITTEE

AD HOC COMMITTEE
AGENDA

Wednesday, October 16, 2019

2:30 P.M.

East Bay Dischargers Authority
2651 Grant Avenue
San Lorenzo, CA

Discussion 1	**LAVWMA Extension**
Discussion 2	**JPA Extension**
Discussion 3	**JPA Renewal**

ITEM NO. 13 RESOLUTION EXTENDING THE AUTHORITY'S MASTER AGREEMENT WITH LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY FOR A PERIOD NOT TO EXCEED ONE YEAR

Recommendation
Approve the resolution extending the expiration date of the Authority's Master Agreement with Livermore-Amador Valley Water Management Agency (LAVWMA).

Background
EBDA entered into a Master Agreement with 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 is set to expire on January 1, 2020 concurrent with the expiration of the EBDA Joint Powers Agreement (JPA).

Discussion
Because the MAC and Commission have prioritized JPA renewal, negotiations with LAVWMA have yet to commence regarding the continuation of the Agreement. At its August 21, 2019 meeting, LAVWMA's Board authorized its General Manager and General Counsel to negotiate and execute an extension to the LAVWMA-EBDA Master Agreement for a period not to exceed one year. EBDA staff recommends that the EBDA Commission similarly authorize an extension of up to one year so that negotiations may take place following the Commission's formal adoption of the amended JPA. Issues to be negotiated with LAVWMA include cost allocation and brine management. Staff's goal will be to complete negotiations with LAVWMA prior to the start of the new JPA and fiscal year on July 1, 2020; however, staff is requesting a one year extension of the Agreement to allow for any potential delays in negotiations or the precedent approvals described above.

EAST BAY DISCHARGERS AUTHORITY
ALAMEDA COUNTY, CALIFORNIA

RESOLUTION NO. 19-38

INTRODUCED BY _____

RESOLUTION EXTENDING THE AUTHORITY'S MASTER AGREEMENT WITH LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY FOR A PERIOD NOT TO EXCEED ONE (1) YEAR

WHEREAS, the East Bay Dischargers Authority (Authority) and Livermore-Amador Valley Water Management Authority (LAVWMA) entered into a Master Agreement on April 26, 2007; and

WHEREAS, that Master Agreement authorizes LAVWMA to discharge through the Authority's system and lays out the terms and conditions for such discharge; and

WHEREAS, the Master Agreement is set to expire on January 1, 2020 concurrent with the expiration of the EBDA Joint Powers Agreement (JPA); and

WHEREAS, the Authority and LAVWMA wish to negotiate an amendment to the Master Agreement following completion of the JPA negotiation; and

WHEREAS, LAVWMA's Board of Directors authorized its General Manager and General Counsel to negotiate the terms and execute an extension to the Master Agreement for a period not to exceed one year; and

WHEREAS, the Ad Hoc Committee recommends approval of a one year extension to allow time for negotiation of a new or revised agreement.

NOW, THEREFORE, BE IT RESOLVED, the Commission of the Authority hereby authorizes the General Manager to execute an extension to the LAVWMA Master Agreement for a period not to exceed one year.

SAN LORENZO, CALIFORNIA, OCTOBER 17, 2019, ADOPTED BY THE FOLLOWING VOTE:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____ **ATTEST:** _____

CHAIR
EAST BAY DISCHARGERS COMMISSION

GENERAL MANAGER
EAST BAY DISCHARGERS AUTHORITY
EX OFFICIO SECRETARY

EAST BAY DISCHARGERS AUTHORITY
2651 Grant Avenue
San Lorenzo, CA 94580-1841
(510) 278-5910
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A Joint Powers Public Agency

ITEM NO. 14

FINANCIAL MANAGEMENT COMMITTEE AGENDA

Monday, October 14, 2019

3:00 p.m.

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

Committee Members: Mendall (Chair); Johnson

FM1. Call to Order

FM2. Roll Call

FM3. Public Forum

FM4. List of Disbursements for September 2019
(The Committee will review the List of Disbursements.)

FM5. Treasurer's Report for September 2019
(The Committee will review the Preliminary Treasurer's Report.)

FM6. FY 2018/19 Expense Summary
(The Committee will review FY 2018/19 final expense summary.)

FM7. East Bay Community Energy Plan Selection
(The Committee will receive an update on the Authority's electrical rate plan.)

FM8. 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.)

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The next Financial Management Committee meeting will be held Monday, November 18, 2019 at 3:00 p.m.

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 16, 2019

ITEM NO. FM4 LIST OF DISBURSEMENTS FOR SEPTEMBER 2019

The itemized List of Disbursements for the month of September 2019, totaled $928,357.34.

Reviewed and Approved by:

Al Mendall, Chair Date
Financial Management Committee

Jacqueline T. Zipkin Date
Treasurer

EAST BAY DISCHARGERS AUTHORITY
Cash Disbursement
September 2019

CHECKS (SORTED BY AMOUNT)

Check #	Check Date	Invoice #	Vendor Name	Description	Itemized Charges	Invoice Amount	Check Amount
24399	9/30/2019	EBMBDO01270	EBMUD	FY2020 BACWA MEMBERSHIP/PROGRAM FEES		464,816.00	464,816.00
24389	9/17/2019	00015	GSE CONSTRUCTION	HEPS MCC REPLACEMENT PP#13 - AUGUST 2019		107,616.00	107,616.00
24396	9/30/2019	373717	CITY OF SAN LEANDRO	JULY O&M		38,903.77	38,903.77
24372	9/17/2019	06176	ORO LOMA SANITARY DISTRICT	JUNE O&M		17,769.92	32,414.58
24372	9/17/2019	06192	ORO LOMA SANITARY DISTRICT	JULY O&M		14,644.66	
24374	9/17/2019	02493	UNION SANITARY DISTRICT	JULY O&M		22,968.50	22,968.50
24393	9/17/2019	APRIL	HANSON BRIDGETT LLP	LEGAL SERVICES JULY		20,980.00	20,980.00
24398	9/30/2019	02494	UNION SANITARY DISTRICT	AUGUST O&M		20,831.08	20,831.08
24383	9/17/2019	SJ958731	UNIVAR	SODIUM BISULFITE DELIVERY 08/26/19		5,843.41	16,751.60
24383	9/17/2019	SJ956173	UNIVAR	SODIUM BISULFITE DELIVERY 08/12/19		5,482.03	
24383	9/17/2019	SJ946459	UNIVAR	SODIUM BISULFITE DELIVERY 06/17/19		5,426.16	
24416	9/30/2019	1248248	HANSON BRIDGETT LLP	LEGAL SERVICES AUGUST		13,955.00	13,955.00
24410	9/30/2019	11352613	BROWN & CALDWELL	ENGINEERING SERVICES		13,181.24	13,181.24
24413	9/30/2019	602482	CALTEST	AUGUST NUTRIENT TESTING		13,025.45	13,025.45
24408	9/30/2019	SJ962870	UNIVAR	SODIUM BISULFITE DELIVERY 09/17/19		5,956.48	11,858.89
24408	9/30/2019	SJ962294	UNIVAR	SODIUM BISULFITE DELIVERY 09/06/19		5,902.41	
24382	9/17/2019	2019060335	MEYERS NAVE	GENERAL COUNSEL AND SPECIAL SERVICES - JUNE 2019		6,780.00	11,555.42
24382	9/17/2019	2019070285	MEYERS NAVE	GENERAL COUNSEL AND SPECIAL SERVICES - JULY 2019		4,775.42	
24397	9/30/2019	6205	ORO LOMA SANITARY DISTRICT	AUGUST O&M		11,279.05	11,279.05
24405	9/30/2019	15768	PACIFIC ECORISK	TOXICITY TESTING - AUGUST		3,806.00	7,334.00
24405	9/30/2019	15810	PACIFIC ECORISK	TOXICITY TESTING - AUGUST		2,078.00	
24405	9/30/2019	15811	PACIFIC ECORISK	TOXICITY TESTING - AUGUST		1,450.00	
24391	9/17/2019	00006	KERMANI CONSULTING GROUP	DISASTER RECOVERY PLANNING - AUGUST 2019		3,632.50	7,075.00
24391	9/17/2019	00005	KERMANI CONSULTING GROUP	DISASTER RECOVERY PLANNING - JULY 2019		3,442.50	
24409	9/30/2019	919-23	BEECHER ENGINEERING, INC	ELECTRICAL ENGINEERING SERVICES SEPTEMBER HEPS		3,400.00	7,000.00
24409	9/30/2019	919-22	BEECHER ENGINEERING, INC	ELECTRICAL ENGINEERING SERVICES SEPTEMBER OLEPS		3,200.00	
24409	9/30/2019	0919-25	BEECHER ENGINEERING, INC	ELECTRICAL ENGINEERING SERVICES SEPTEMBER EBDA FACILITY		400.00	
24385	9/17/2019	11351374	BROWN & CALDWELL	OUTFALL INSPECTION AND ASSESSMENT - JULY		6,837.89	6,837.89
24415	9/30/2019	12	CURRIE ENGINEERS	CONSTRUCTION MANAGEMENT - HEPS MCC SEPTEMBER		4,160.25	4,740.75
24415	9/30/2019	13	CURRIE ENGINEERS	CONSTRUCTION MANAGEMENT- OLEPS SEPTEMBER		580.50	
24378	9/17/2019	19-Jun	DEBORAH QUINN	ACCOUNTING SERVICES JUNE		4,293.75	4,293.75
24411	9/30/2019	OE01858201	AEROTEK, INC.	SUPPLEMENTAL STAFFING SERVICES - PERIOD ENDING 09/14		2,113.10	3,758.15
24411	9/30/2019	OE01854582	AEROTEK, INC.	SUPPLEMENTAL STAFFING SERVICES - PERIOD ENDING 09/07		1,645.05	
24390	9/17/2019	126707	GHD	ASSET MANAGEMENT CONSULTING - JUNE		3,360.00	3,360.00
24387	9/17/2019	OE01850894	AEROTEK, INC.	SUPPLEMENTAL STAFFING SERVICES - PERIOD ENDING 08/31		1,966.25	3,203.75

EAST BAY DISCHARGERS AUTHORITY
Cash Disbursement
September 2019

Check #	Check Date	Invoice #	Vendor Name	Description	Itemized Charges	Invoice Amount	Check Amount
24387	9/17/2019	OE01847121	AEROTEK, INC.	SUPPLEMENTAL STAFFING SERVICES - PERIOD ENDING 08/24		1,237.50	
24377	9/17/2019	45037	CALCON	SBS SUMP PUMP SAFETY UPGRADE; VALVE REPLACEMENT		2,019.60	3,129.20
24377	9/17/2019	45001	CALCON	SKYWEST DATA CORR. AND OPS CENTER REPROT GENERATION ISSUES		1,109.60	
24381	9/17/2019	55687627	USBANK	GRAND HYATT	584.06	2,225.73	2,225.73
24381	9/17/2019	55687627	USBANK	REMOTE DATA BACKUPS	558.00		
24381	9/17/2019	55687627	USBANK	SOUTHWEST AIRLINES	230.99		
24381	9/17/2019	55687627	USBANK	AT&T	176.11		
24381	9/17/2019	55687627	USBANK	OFFICE DEPOT	162.70		
24381	9/17/2019	55687627	USBANK	REALVNC - REMOTE ACCESS TO SCADA	110.00		
24381	9/17/2019	55687627	USBANK	INTERMEDIA.NET	86.41		
24381	9/17/2019	55687627	USBANK	HOME DEPOT	65.81		
24381	9/17/2019	55687627	USBANK	CSDA	40.00		
24381	9/17/2019	55687627	USBANK	HOME DEPOT	35.09		
24381	9/17/2019	55687627	USBANK	IMPARK	29.00		
24381	9/17/2019	55687627	USBANK	LYFT	17.00		
24381	9/17/2019	55687627	USBANK	OFFICE DEPOT	16.45		
24381	9/17/2019	55687627	USBANK	PACIFIC RENAISSANCE PARKING	16.00		
24381	9/17/2019	55687627	USBANK	LYFT	15.00		
24381	9/17/2019	55687627	USBANK	LYFT	15.00		
24381	9/17/2019	55687627	USBANK	THE COUNTER	13.20		
24381	9/17/2019	55687627	USBANK	PACIFIC RENAISSANCE PARKING	13.00		
24381	9/17/2019	55687627	USBANK	DUNKIN	12.99		
24381	9/17/2019	55687627	USBANK	SAFEWAY	12.98		
24381	9/17/2019	55687627	USBANK	EAST BAY TIMES	9.95		
24381	9/17/2019	55687627	USBANK	PACIFIC RENAISSANCE PARKING	5.00		
24381	9/17/2019	55687627	USBANK	APPLE - PHONE BACKUP CLOUD STORAGE	0.99		
24392	9/17/2019	42468	COMPUTER COURAGE	WEBSITE DEVELOPMENT AUGUST		1,873.80	1,873.80
24380	9/17/2019	006L2754	HARRINGTON INDUSTRIAL PLASTICS	SBS VALVE		1,845.25	1,845.25
24371	9/17/2019	457-303166	VANTAGEPOINT TRANSFER AGENTS	ICMA DEFERRED COMPENSATION FOR PAY PERIOD ENDED 09/15/19		1,767.85	1,767.85
24395	9/30/2019	457-303166	VANTAGEPOINT TRANSFER AGENTS	ICMA DEFERRED COMPENSATION FOR PAY PERIOD ENDED 09/30/19		1,767.85	1,767.85
24373	9/17/2019	52205703	CITY OF HAYWARD	INSURANCE PREMIUMS SEPTEMBER		1,507.83	1,507.83
24384	9/17/2019	EBD3053	ALPHA ANALYTICAL	SKYWEST LAB SAMPLES JULY/AUGUST		1,480.00	1,480.00
24412	9/30/2019	JULY	EVERARDO OROZCO LANDSCAPE MGMT	LANDSCAPING SERVICES JULY		350.00	1,050.00
24412	9/30/2019	AUG	EVERARDO OROZCO LANDSCAPE MGMT	LANDSCAPING SERVICES AUGUST		350.00	
24412	9/30/2019	SEPT	EVERARDO OROZCO LANDSCAPE MGMT	LANDSCAPING SERVICES SEPTMEBER		350.00	
24376	9/17/2019	1746192-19	SCIF STATE COMP INSUR FUND	PREMIUM SEPTEMBER		603.25	603.25

EAST BAY DISCHARGERS AUTHORITY
Cash Disbursement
September 2019

Check #	Check Date	Invoice #	Vendor Name	Description	Itemized Charges	Invoice Amount	Check Amount
24375	9/17/2019	5102785910	AT&T	EBDA LOCATION		452.63	452.63
24406	9/30/2019	1ST QRT	PITNEY BOWES RESERVE ACCOUNT	POSTAGE		300.00	300.00
24403	9/30/2019	9837155603	VERIZON WIRELESS	ADMIN AUGUST		192.57	215.27
24403	9/30/2019	9837908762	VERIZON WIRELESS	MDF SEPTEMBER		22.70	
24379	9/17/2019	8108	CAYUGA INFORMATION SYSTEMS	TECHNICAL SUPPORT AUGUST		180.00	180.00
24407	9/30/2019	4549	TOWN & COUNTRY OFFICE CLEANING	JANITORIAL SERVICES FOR 09/19		165.00	165.00
24404	9/30/2019	3103385682	PITNEY BOWES	POSTAGE MACHINE JULY THROUGH OCTOBER		162.96	162.96
24386	9/17/2019	01043	KRAFTIC	MAY/JUNE		150.00	150.00
24388	9/17/2019	2841409	CALTRONICS	MONTHLY COPY MACHINE BILLING AUGUST		134.84	134.84
24400	9/30/2019	800001	EBMUD	ADMIN QUARTERLY WATER & SEWER		118.94	118.94
24414	9/30/2019	2864338	CALTRONICS	MONTHLY COPY MACHINE BILLING SEPTEMBER		86.53	98.53
24414	9/30/2019	2862042	CALTRONICS	FREIGHT FOR TONER		12.00	
24402	9/30/2019	674451523	FEDEX	AGENDA SHIPPING		77.40	77.40
24394	9/30/2019	19-Sep	JACQUELINE ZIPKIN	EXPENSE REIMBURSEMENT - AUGUST		53.01	53.01
24401	9/30/2019	5104830439	AT&T	MDF SEPTEMBER		52.56	52.56
				TOTAL CHECK PAYMENTS			**867,151.77**
				ELECTRONIC PAYMENTS			
	9/4/2019	15775000	PERS HEALTH	HEALTH PREMIUMS - SEPTEMBER 2019		7,026.35	7,026.35
	9/3/2019	7-2019-2	CALPERS	PENSION PAYMENT FOR PERIOD 07/16/19-07/31/19		3,250.03	3,250.03
	9/13/2019	8-2019-1	CALPERS	PENSION PAYMENT FOR PERIOD 08/01/19-08/15/19		3,264.82	3,264.82
	9/30/2019	8-2019-2	CALPERS	PENSION PAYMENT FOR PERIOD 08/16/19-08/31/19		3,353.54	3,353.54
	9/3/2019	15754897	CALPERS	MONTHLY UNFUNDED LIABILITY - AUGUST 2019		3,503.42	3,503.42
	9/25/2019	15788830	CALPERS	MONTHLY UNFUNDED LIABILITY - SEPTEMBER 2019		3,503.42	3,503.42
	9/13/2019	15779671	CALPERS	FEES FOR GASB-68 REPORTS & SCHEDULES		350.00	350.00
				TOTAL ELECTRONIC PAYMENTS			**24,251.58**
				PAYROLL			
	9/15/2019	9/15/2019	PAYROLL	09/01-15/2019		17,456.63	17,456.63
	9/30/2019	9/30/2019	PAYROLL	09/16-30/2019		17,076.48	19,497.36
	9/30/2019	Sep-19	CUTTER, PAULINE RUSSO	DIRECT DEPOSIT		480.00	
	9/30/2019	Sep-19	LATHI, ANJALI	DIRECT DEPOSIT		480.00	
	9/30/2019	Sep-19	MENDALL, AL	DIRECT DEPOSIT		260.88	
	9/30/2019	Sep-19	JOHNSON, RALPH	DIRECT DEPOSIT		480.00	
	9/30/2019	Sep-19	WALTERS, DAN	DIRECT DEPOSIT		720.00	
				TOTAL PAYROLL			**36,953.99**
				TOTAL DISBURSEMENTS			**928,357.34**

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 16, 2019

ITEM NO. FM5 TREASURER'S REPORT FOR SEPTEMBER 2019

The beginning cash balance on September 1, 2019, was $4,907,025.67. The ending cash balance on September 30, 2019, was $4,244,145.04. Total receipts for the month were $265,476.71 and disbursements were $928,357.34.

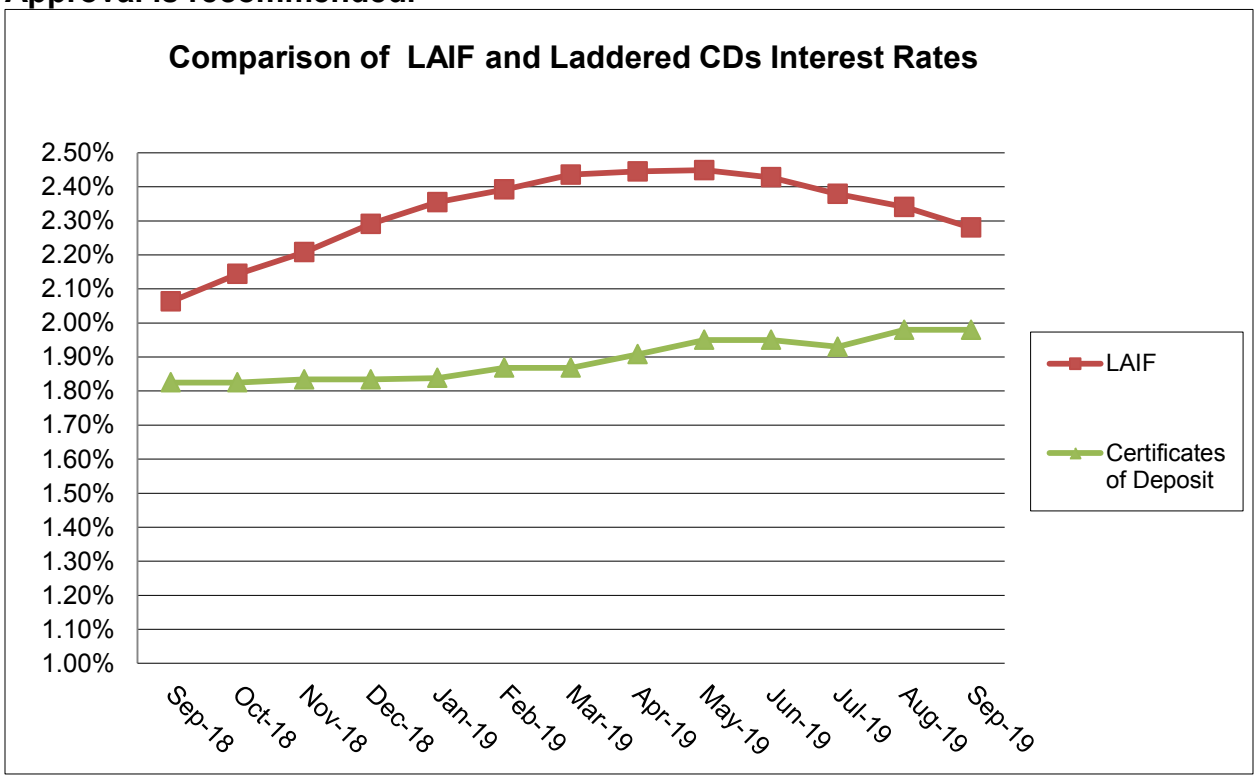
EBDA currently has a three-pronged investment approach that includes laddered CDs, Local Agency Investment Fund (LAIF), and a Wells Fargo savings account. As directed by the Financial Management Committee, funds are currently being transferred to savings and/or LAIF as CDs mature. Staff will continue to work with the Committee on investment strategy. Funds from two matured CDs ($104K) were transferred to savings in September.

Current market value of laddered CD investments total $651,905.33. The average annual yield of the CDs is 1.98%.

EBDA's LAIF balance beginning September 1, 2019, was $3,229,932.27. The ending balance remained the same with no interest credits for September 2019. The LAIF interest rate for the period ending September 30, 2019 was 2.280%.

The Wells Fargo State/Local Government account interest rate for this period was 0.03%.

Approval is recommended.



EAST BAY DISCHARGERS AUTHORITY
PRELIMINARY
TREASURER'S REPORT
SEPTEMBER 30, 2019

FUND	DESCRIPTION	BEGINNING CASH BALANCE	DEBITS (INCREASE)	CREDITS (DECREASE)	ENDING CASH BALANCE
12	OPERATIONS & MAINTENANCE	1,099,350.49	163,893.66	437,164.69	826,079.46
13	PLANNING & SPECIAL STUDIES	728,746.46	90,344.07	348,726.58	470,363.95
14	RECLAMATION O & M (SKYWEST)	137,319.24	10,000.00	11,498.33	135,820.91
31	REPLACEMENT	2,929,839.98	1,238.98	130,967.74	2,800,111.22
41	CONSTRUCTION	11,769.50			11,769.50
	TOTALS	4,907,025.67	265,476.71	928,357.34	4,244,145.04

Sep-19
10/9/19

SUPPLEMENTAL TREASURERS REPORT

DATE	TRANSACTION	RECEIPT	DISBURSEMENT REGULAR	DISBURSEMENT PAYROLL	PAYROLL TRANSFER	SAVINGS TRANSFER	LAIF TRANSFER	CD TRANSFER	CD INTEREST & EXPENSES	WELLS FARGO REGULAR CHECKING BALANCE	WELLS FARGO PAYROLL CHECKING BALANCE	WELLS FARGO REGULAR SAVINGS BALANCE	LAIF BALANCE	WELLS FARGO CERTIFICATES OF DEPOSIT	TOTAL CASH
08/31/19	BALANCE									752,207.35	68,264.51	101,621.08	3,229,932.27	755,000.46	4,907,025.67
09/03/19	ELECTRONIC BILL PAY		3,250.03							748,957.32	68,264.51	101,621.08	3,229,932.27	755,000.46	4,903,775.64
09/03/19	ELECTRONIC BILL PAY		3,503.42							745,453.90	68,264.51	101,621.08	3,229,932.27	755,000.46	4,900,272.22
09/03/19	INTEREST	453.70							453.70	745,453.90	68,264.51	101,621.08	3,229,932.27	755,454.16	4,900,725.92
09/04/19	ELECTRONIC BILL PAY		7,026.35							738,427.55	68,264.51	101,621.08	3,229,932.27	755,454.16	4,893,699.57
09/04/19	DEPOSIT	77.39								738,504.94	68,264.51	101,621.08	3,229,932.27	755,454.16	4,893,776.96
09/09/19	DEPOSIT	5,500.00								744,004.94	68,264.51	101,621.08	3,229,932.27	755,454.16	4,899,276.96
09/10/19	TRANSFER FROM CD TO SAVINGS							(103,889.53)		744,004.94	68,264.51	205,510.61	3,229,932.27	651,564.63	4,899,276.96
09/11/19	DIVIDEND	37.46							37.46	744,004.94	68,264.51	205,510.61	3,229,932.27	651,602.09	4,899,314.42
09/12/19	PAYROLL TRANSFER				20,000.00					724,004.94	88,264.51	205,510.61	3,229,932.27	651,602.09	4,899,314.42
09/12/19	PAYROLL			17,456.63						724,004.94	70,807.88	205,510.61	3,229,932.27	651,602.09	4,881,857.79
09/13/19	ELECTRONIC BILL PAY		3,264.82							720,740.12	70,807.88	205,510.61	3,229,932.27	651,602.09	4,878,592.97
09/13/19	ELECTRONIC BILL PAY		350.00							720,390.12	70,807.88	205,510.61	3,229,932.27	651,602.09	4,878,242.97
09/16/19	DEPOSIT - COH	248,152.34								968,542.46	70,807.88	205,510.61	3,229,932.27	651,602.09	5,126,395.31
09/16/19	INTEREST	69.86							69.86	968,542.46	70,807.88	205,510.61	3,229,932.27	651,671.95	5,126,465.17
09/16/19	DEPOSIT - HARD	10,000.00								978,542.46	70,807.88	205,510.61	3,229,932.27	651,671.95	5,136,465.17
09/16/19	DEPOSIT	8.00								978,550.46	70,807.88	205,510.61	3,229,932.27	651,671.95	5,136,473.17
09/17/19	DISBURSEMENT		252,406.87							726,143.59	70,807.88	205,510.61	3,229,932.27	651,671.95	4,884,066.30
09/20/19	INTEREST	491.51							491.51	726,143.59	70,807.88	205,510.61	3,229,932.27	652,163.46	4,884,557.81
09/25/19	PAYROLL TRANSFER				20,000.00					706,143.59	90,807.88	205,510.61	3,229,932.27	652,163.46	4,884,557.81
09/25/19	ELECTRONIC BILL PAY		3,503.42							702,640.17	90,807.88	205,510.61	3,229,932.27	652,163.46	4,881,054.39
09/27/19	DEPOSIT	500.00								703,140.17	90,807.88	205,510.61	3,229,932.27	652,163.46	4,881,554.39
09/27/19	PAYROLL			19,497.36						703,140.17	71,310.52	205,510.61	3,229,932.27	652,163.46	4,862,057.03
09/30/19	DISBURSEMENT		614,744.90							88,395.27	71,310.52	205,510.61	3,229,932.27	652,163.46	4,247,312.13
09/30/19	ELECTRONIC BILL PAY		3,353.54							85,041.73	71,310.52	205,510.61	3,229,932.27	652,163.46	4,243,958.59
09/30/19	INTEREST	1.76			1.76					85,041.73	71,312.28	205,510.61	3,229,932.27	652,163.46	4,243,960.35
09/30/19	INTEREST	161.37							161.37	85,041.73	71,312.28	205,510.61	3,229,932.27	652,324.83	4,244,121.72
09/30/19	DIVIDEND	0.17							0.17	85,041.73	71,312.28	205,510.61	3,229,932.27	652,325.00	4,244,121.89
09/30/19	INTEREST	4.30				4.30				85,041.73	71,312.28	205,514.91	3,229,932.27	652,325.00	4,244,126.19
09/30/19	INTEREST	18.85								85,060.58	71,312.28	205,514.91	3,229,932.27	652,325.00	4,244,145.04
										85,060.58	71,312.28	205,514.91	3,229,932.27	652,325.00	4,244,145.04
										85,060.58	71,312.28	205,514.91	3,229,932.27	652,325.00	4,244,145.04
										85,060.58	71,312.28	205,514.91	3,229,932.27	652,325.00	4,244,145.04
	TOTAL	265,476.71	891,403.35	36,953.99	40,001.76	4.30	-	(103,889.53)	1,214.07						
	CURRENT BALANCE									85,060.58 ①	71,312.28 ②	205,514.91 ③	3,229,932.27 ④	652,325.00 ⑤	4,244,145.04

Reconciliation

①	Per Bank Statement @09/30/19	$ 700,464.96
	Less: Outstanding Checks	615,404.38
		$ 85,060.58
②	Per Bank Statement @09/30/19	$ 71,312.28
③	Per Bank Statement @09/30/19	$ 205,514.91
④	Per LAIF Statement @09/30/19	$3,229,932.27
⑤	Per Treasurer's Report @09/30/19	$ 652,325.00
	Fair Market Value Increase/Decrease	306.91
	Per Investment Statement @09/30/19	$ 652,631.91

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

CD PORTFOLIO

Institution	Description	Purchase Date	Maturity Date	Estimated Annual Yield	Quantity	Current Market Value
ALLY BANK	ALLY BANK CD MIDVALE UT ACT/365 FDIC INSURED CPN 1.350% DUE 11/04/19 DTD 11/03/16 FC 05/03/17	11/3/2016	11/04/2019	1.35%	50,000	49,959.50
ALLY BANK	ALLY BANK CD MIDVALE UT ACT/365 FDIC INSURED CPN 1.600% DUE 12/16/19 DTD 12/15/16 FC 06/15/17	12/15/2016	12/16/2019	1.60%	50,000	49,967.00
ALLY BANK Total						99,926.50
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	50,072.00
BARCLAYS BANK Total						50,072.00
CAPITAL ONE BK USA NA	CAPITAL ONE BK USA NA CD GLEN ALLEN VA ACT/365 FDIC INSURED CPN 1.750% DUE 01/13/20 DTD 01/11/17 FC 07/11/17	1/11/2017	1/13/2020	1.75%	50,000	49,980.00
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	50,107.00
CAPITAL ONE BK USA NA Total						100,087.00
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	50,891.00
CITIBANK NA Total						50,891.00
COMENITY BANK	COMENITY BANK CD WILMINGTON DE ACT/365 JUMBO CD FDIC INSURED CPN 1.900% DUE 8/31/20 DTD 8/30/17 FC 9/30/17 CUSIP 99000PTY2	8/30/2017	8/31/2020	1.90%	100,000	99,770.00
COMENITY BANK Total						99,770.00
DISCOVER BANK	DISCOVER BANK CD GREENWOOD DE ACT/365 FDIC INSURED CPN 1.800% DUE 03/02/20 DTD 03/01/17 FC 09/01/17 CUSIP 2546723K2	3/1/2017	3/2/2020	1.80%	50,000	49,988.00
DISCOVER BANK Total						49,988.00
GOLDMAN SACHS BK USA	GOLDMAN SACHS BK USA CD NEW YORK NY ACT/365 FDIC INSURED CPN 1.900% DUE 06/22/20 DTD 06/21/17 FC 12/21/17	6/21/2017	6/22/2020	1.89%	3,000	3,002.04
GOLDMAN SACHS BK USA Total						3,002.04
KEY BANK NA	KEY BANK NA CD CLEVELAND OH ACT/365 FDIC INSURED CPN 1.750% DUE 04/13/20 DTD 04/12/17 FC 10/12/17	4/12/2017	4/13/2020	1.75%	50,000	49,977.50
KEY BANK NA Total						49,977.50

CD PORTFOLIO

Institution	Description	Purchase Date	Maturity Date	Estimated Annual Yield	Quantity	Current Market Value
LAKESIDE BANK	LAKESIDE BANK CD CHICAGO IL ACT/365 FDIC INSURED CPN 1.750% DUE 02/14/20 DTD 07/14/17 FC 08/14/17 CUSIP 51210SNL7	7/12/2017	2/14/2020	1.75%	47,000	46,979.79
LAKESIDE BANK Total						46,979.79
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	50,468.50
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	50,743.00
MORGAN STANLEY BK NA Total						101,211.50
Grand Total						651,905.33
Average Estimated Annual Yield				1.98%		

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
September 16, 2019

ITEM NO. FM6 FY 2018/19 EXPENSE SUMMARY AND FINAL COSTS TO MEMBER AGENCIES

Recommendation
No action is required by the Commission.

Background
This staff summary presents agency final expense summary for FY 2018/19.

Discussion
Overall, EBDA's annual expenses were 21% under budget. The O&M Fund was 17% under budget, thanks to optimization of operations and maintenance, a fortunate distribution of storms during the winter resulting in decreased energy costs, and avoidance of *Enterococcus* outbreaks leading to lower chemical usage and monitoring. The Special Projects Fund was 31% 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. The Skywest Fund was 44% 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 become clearer.

The Year End Expense Summary for FY 2018/19 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 (>$10,000) from the budget.

Due to the budget underrun, all agencies will be receiving credits. As discussed previously with the Commission, instead of automatically applying those credits to each Agency's quarterly bill for FY19/20, agencies will have an opportunity to elect to apply these credits to their lump sum payments for pension and other post-employment benefits (OPEB). Additional detail on the value of each Agency's credit, as well as each Agency's required contribution to meet the pension and OPEB funding targets, will be provided next month for the Committee's review and direction. Staff intends to bring a Resolution to the Commission subsequently, laying out the agreed approach to one-time pension and OPEB pre-funding and the application of FY18/19 O&M credits toward that pre-funding.

East Bay Dischargers Authority

EXPENSE SUMMARY BY PROGRAM

FY 2018/19 THROUGH JUNE 30, 2019

	YE Expenses	Budget	Variance	% of Budget	Last FY Expenses	Explanations for Variance over $10,000
O&M EFFLUENT DISPOSAL						
General Administration	$968,097	$1,062,032	($93,935)	91%	$1,087,776	Under budget due to underspending on insurance and IT, and billing of Calcon and PM/CM to Fund 31 projects.
Outfall & Forcemains	$141,397	$182,394	($40,997)	78%	$162,834	Under budget due to optimization of maintenance efforts and staff availability.
San Leandro Pump Station	$97,847	$101,718	($3,871)	96%	$84,932	
Marina Dechlor Facility	$391,128	$479,676	($88,548)	82%	$365,598	Although a wet year, budget allowed for more frequent and intense storms than occurred. Optimization efforts resulted in further savings.
Oro Loma Pump Station	$375,409	$483,915	($108,506)	78%	$380,935	Although a wet year, budget allowed for more frequent and intense storms than occurred.
Hayward Pump Station	$128,424	$127,394	$1,030	101%	$109,534	
Alvarado Pump Station	$290,998	$376,694	($85,696)	77%	$274,970	Although a wet year, budget allowed for more frequent and intense storms than occurred.
Bay & Effluent Monitoring	$413,581	$565,515	($151,934)	73%	$550,882	Under budget because of absence of enterococcus issues and as a result of optimization.
TOTAL O&M EFFLUENT DISPOSAL	**$2,806,881**	**$3,379,338**	**($572,457)**	**83%**	**$3,017,461**	
SPECIAL PROJECTS						
NPDES Permit Fees	$434,654	$450,000	($15,346)	97%	$395,101	Fee was less than budgeted.
Regional Monitoring Program	$118,565	$280,000	($161,435)	42%	$243,281	For consistency with standard accounting practices, two quarters of RMP fees ($118k) were shifted to FY 19/20 on an accrual basis. RMP fees were also lower than budgeted.
Nutrient Surcharge	$106,667	$107,000	($333)	100%	$0	
Water Environment Research Foundation	$19,886	$25,000	($5,114)	80%	$20,924	
Transport System Evaluation	$67,299	$125,000	($57,701)	54%	$189,194	Further inspection of the 96" line was deferred. A portion of these funds were used for the Seismic Reliability Study.
JPA Evaluation Studies	$77,372	$200,000	($122,628)	39%	$91,255	Need for specific JPA studies was not identified, aside from legal support. A portion of these funds were used as planned for Disaster Cost Recovery Planning.
NPDES Testing - CSL	$13,970	$21,250	($7,280)	66%	$11,579	
NPDES Testing - OLSD	$15,826	$23,250	($7,424)	68%	$9,277	
NPDES Testing - HAY	$21,847	$25,250	($3,403)	87%	$13,975	
NPDES Testing - USD	$17,007	$29,250	($12,243)	58%	$12,998	
TOTAL SPECIAL PROJECTS	**$893,092**	**$1,286,000**	**($392,908)**	**69%**	**$987,584**	
WATER RECYCLING						
Skywest Golf Course	$79,726	$120,000	($40,274)	66%	$54,400	Capital for Skywest was deferred until future plans for the golf course and for Hayward's potential recycled water service become clear. Optimization efforts also resulted in savings.
TOTAL WATER RECYCLING	**$79,726**	**$120,000**	**($40,274)**	**66%**	**$54,400**	
TOTAL PROGRAMS	**$3,779,698**	**$4,785,338**	**($1,005,640)**	**79%**	**$4,059,445**	

East Bay Dischargers Authority

EXPENSE SUMMARY BY ACCOUNT

FY 2018/19 THROUGH JUNE 30, 2019

	YE Expenses	Budget	Variance	% of Budget	Last FY Expenses	Explanations for Variance over $10,000
4010 - Salary	$479,739	$480,748	($1,009)	100%	$480,085	
4020 - Benefits	$222,459	$226,390	($3,931)	98%	$371,866	
4030 - Commissioner Compensation	$39,630	$45,000	($5,370)	88%	$38,142	
4070 - Insurance	$45,248	$54,000	($8,752)	84%	$43,119	
4080 - Memberships & Subscriptions	$143,678	$139,000	$4,678	103%	$121,900	
4100 - Supplies, Variable	$212,600	$254,000	($41,400)	84%	$163,342	Although a wet year, budget allowed for more frequent and intense storms than occurred.
4100 - Supplies, Fixed	$17,940	$24,000	($6,060)	75%	$18,703	
4110 - Contract Services	$51,099	$68,000	($16,901)	75%	$57,189	Under budget because there has been no significant need for contract services at the stations.
4120 - Professional Services	$536,123	$953,000	($416,877)	56%	$722,387	Under budget because of underspending on Special Studies (Transport Inspection, JPA), billing of Calcon and PM/CM time to Fund 31 projects, and reduced lab costs through proactive management of enterococcus.
4140 - Rents & Fees	$692,253	$888,300	($196,047)	78%	$668,553	For consistency with standard accounting practices, two quarters of RMP fees ($118k) were shifted to FY 19/20 on an accrual basis. RMP fees were also lower than budgeted.
4141 - NPDES Fines	$0	$10,000	($10,000)	0%	$0	EBDA had no violations.
4150 - Maintenance & Repair	$623,848	$735,500	($111,652)	85%	$632,434	Under budget due to optimization of maintenance efforts and no major repair needs at the stations.
4160 - Monitoring	$142,408	$177,600	($35,192)	80%	$170,079	Under budget because additional effort related to enterococcus outbreaks was not required.
4170 - Travel	$5,803	$18,000	($12,197)	32%	$6,908	Staff attended fewer trainings and conferences than originally planned.
4190 - Utility, Fixed	$18,826	$21,500	($2,674)	88%	$18,753	
4191 - Utility, Variable (PG&E)	$545,798	$645,300	($99,502)	85%	$542,667	Although a wet year, budget allowed for more frequent and intense storms than occurred. Budget for FY 19/20 is slightly less conservative.
4200 - Acquisitions & Other	$2,246	$45,000	($42,754)	5%	$3,436	Capital set aside for Skywest has been deferred.
SUB TOTAL ALL ACCOUNTS	**$3,779,698**	**$4,785,338**	**($1,005,640)**	**79%**	**$4,059,562**	

ITEM NO. FM7 EAST BAY COMMUNITY ENERGY PLAN OPTIONS

Recommendation
No action is required by the Commission.

Background
As discussed with the Committee last month, East Bay Community Energy (EBCE) offers three plans, which are summarized in the table below.

Bright Choice	1.5% Discount from PG&E rates	85% carbon free and of that, 38% renewable
Brilliant 100	Same rate as PG&E	100% carbon free, 40% renewable
Renewable 100	$0.01 per kWh above PG&E rates	100% renewable

Discussion
Based on the Committee's recommendation, and the Commission's concurrence, all of the accounts EBDA holds are now enrolled in the Brilliant 100 Plan. EBDA is billed for the Alvarado Effluent Pump Station through USD.

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

A Joint Powers Public Agency

ITEM NO. 15

REGULATORY AFFAIRS COMMITTEE AGENDA

Wednesday, October 16, 2019
9:00 a.m.

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

Committee Members: Johnson (Chair); Cutter

RA1. Call to Order

RA2. Roll Call

RA3. Public Forum

RA4. Status Report – NPDES Report
(The Committee will review NPDES Permit compliance data for August 2019.)

RA5. BACWA Key Regulatory Issue Summary
(The Committee will review BACWA's issue summary.)

RA6. Microplastics Update
(The Committee will discuss recent research regarding sources of microplastics to the Bay.)

RA7. CASA PFAS Fact Sheet
(The Committee will review a fact sheet on per and polyfluoroalkyl substances.)

RA8. 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 Regulatory Affairs Committee meeting is scheduled for Wednesday, November 20, 2019, at 9:00 a.m.

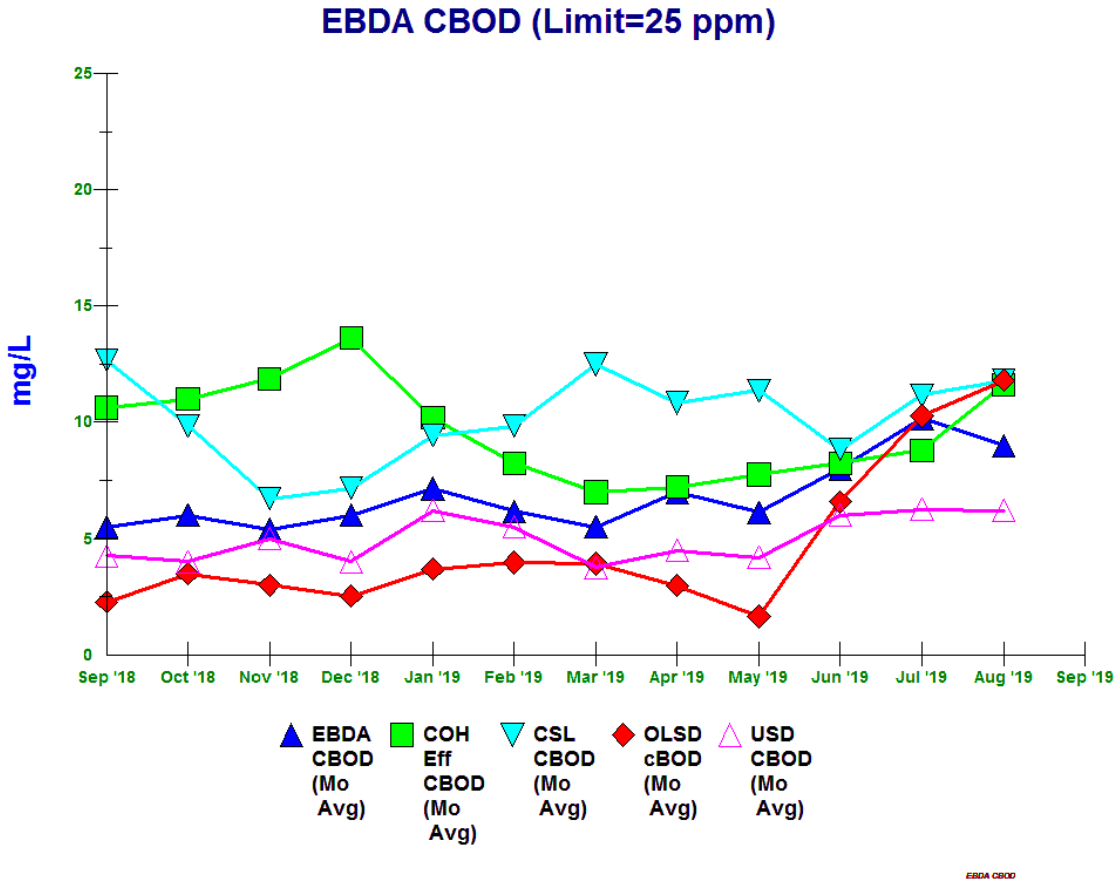
ITEM NO. RA4 STATUS REPORT – NPDES PERMIT

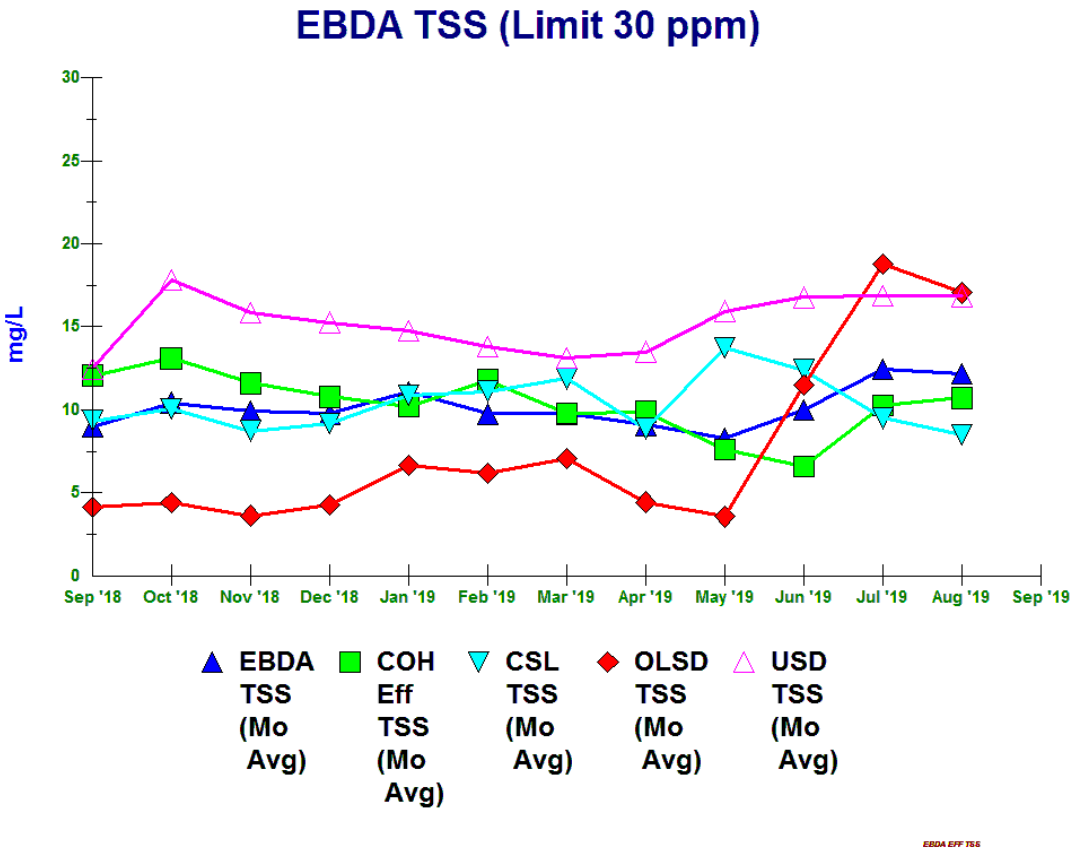
Recommendation
For the Committee's information only; no action is required.

Permit Compliance Issues
There were no NPDES permit violations in July and preliminary data from August are also free of permit exceedances. Member Agency CBOD and TSS performance are shown below. A table with bacterial indicators is also included.

As noted previously, bacterial regrowth tends to accelerate as the weather warms in the summer months, and staff has kept chlorine dosing high to ensure that high bacteria results are not detected. The high dosing was successful in August, resulting in consistently low values for both fecal coliform and enterococcus, as shown in the table below.

As discussed last month, the Authority did exceed its threshold for acute toxicity, however, because a follow-up investigation confirmed ammonia to be the cause, the exceedance is not considered an effluent violation and is not carried forward in the Authority's multi-sample median or percentile calculations.




EBDA TSS (Limit 30 ppm)
mg/L
30
25
20
15
10
5
0
Sep '18
Oct '18
Nov '18
Dec '18
Jan '19
Feb '19
Mar '19
Apr '19
May '19
Jun '19
Jul '19
Aug '19
Sep '19
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 MPN/ 100mL		ENTERO MPN/ 100mL
Limit (Geomean)	500		240
Jan 2019, Geomean	**6**		**3**
Feb 2019, Geomean	**3**		**3**
Mar 2019, Geomean	**7**		**2**
April 2019, Geomean	**7**	<	**2**
May 2019, Geomean	**14**		**2**
June 2019, Geomean	**16**		**3**
July 2019, Geomean	**9**	<	**3**
8/5/2019	29		2
8/6/2019	79	<	2
8/7/2019	110		4
8/12/2019	12	<	2
8/13/2019	17		62
8/14/2019	13	<	2
8/19/2019	4	<	2
8/20/2019	22	<	2
8/21/2019	130		4
8/26/2019	62	<	2
8/27/2019	79		4
August 2019, Geomean	**32**	<	**3**
9/2/2019	15		6
9/3/2019	23		3
9/4/2019	7		4
9/9/2019	74	<	2
9/10/2019	4		3
9/11/2019	23	<	2
9/16/2019	28		51
9/17/2019	23		3
9/23/2019	4		2
9/24/2019	4		2
9/30/2019	4	<	2
Sept 2019, Geomean	**12**		**3**

ITEM NO. RA5 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 24, 2019

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 will contribute the $2.2M required by the Watershed Permit, and is considering "frontloading" additional funds that would be subtracted from future permit years. Moving the funding up would 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.	• 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 the Stakeholder Advisory Group.**	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 Permits was adopted May 8, 2019 with an effective date of July 1, 2019. • The second Nutrient Watershed permit 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 Bases 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, 2019. • 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 will now be based on water year, through September 30, instead of permit year, through June 30. ○ 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, which was updated with the monitoring and reporting requirements in the second Nutrient Watershed Permit.** • **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 team led by HDR to provide information to be used for Nutrient Removal by Recycled Water Evaluation and the Nature Based Systems study.** • Begin discussions about development of a potential Nutrient Trading framework.	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 is working with BACWA to develop a Basin Plan amendment. BACWA has retained consultant support for this effort. • The Basin Plan amendment will likely include: ○ Adopting EPA Ambient Water Quality Criteria for chlorine, which would be applied with dilution, and lead to limits with a one-hour average compliance period ○ Establishing a Minimum Level, or Reporting Limit for online continuous monitoring system. Work to come to an agreement about what the ML/RL should be is ongoing.	• Work with the consultant and Regional Water Board to proceed with tasks in the Scope of Work to support the Basin Plan Amendment. • **If necessary, volunteer for field studies to support establishing a Minimum Level or Reporting limit for online continuous chlorine analyzers.**	Basin Plan Amendment support Scope of Work: https://bacwa.org/wp-content/uploads/2018/01/EOA-Inc.-SOW-Budget.pdf
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. • 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 residents 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.	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 have been awarded to APA Family Support Services and the California Indian Environmental Alliance.	• Continue outreach to dentists on amalgam separation through BAPPG and BACWA's pretreatment committee. • Schedule risk reduction presentations by the grantees to BACWA's Executive Board and the Regional Water Board in 2019 or 2020.	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 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 indicated it will grant dilution credit when implementing the new objectives in permits.	• BACWA is working with SFEI to perform a study of background enterococcus levels in the San Francisco Bay. SFPUC has volunteered use of their boat for collecting samples. This study is being funded by BACWA. It began in Summer 2019, and will wrap up during the following wet season in 2019/20. The first round of samples found enterococcus levels near the detection limit in most locations.	SWB Bacterial Objective page: https://www.waterboards.ca.gov/bacterialobjectives/

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 19, 2018, would establish: ○ numeric limits for chronic toxicity; ○ 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); ○ Regional Water Board discretion on whether to require RPAs for acute toxicity • 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 to discuss with the State Water Board continue to be: ○ reasonable potential analysis methodology, ○ MMEL testing schedule, ○ 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 approximate $100K per years. • 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 contributed to the development of a White Paper, led by CASA, looking at the inherent variability in the *Ceriodaphnia dubia* test method. The State Water Board is considering removing *C. dubia* tests for MMEL compliance purposes until a study on its accuracy and variability is complete. • BACWA hosted a toxicity workshop for its members in September 2017.	• Meet with state Water Board staff and Regional Water Board staff to request that sensitive species screening not be required for agencies • Participate in State Water Board Workshop on October 3, 2019. • Work with Regional Water Board to come to agreement on details of how the Toxicity Provisions will be implemented in Region 2.	State Board Toxicity Page: http://www.swrcb.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.shtml 2018 Draft Toxicity Provisions: https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/docs/toxicity_draft_provisions.pdf Toxicity Workshop Presentations: https://bacwa.org/bacwa-toxicity-workshop-september-18-2017/ CASA *Ceriodaphnia dubia* White Paper: https://bacwa.org/document/casa-white-paper-on-ceriodaphnia-dubia/ BACWA Comments on Toxicity Provisions: https://bacwa.org/document/bacwa-comments-on-toxicity-provisions-12-21-18/

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 develop 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 participation in RMP CECs studies is key to avoiding regulatory mandates for CECs monitoring. These studies are informational and not for compliance purposes. • Microplastics have been a focus of the RMP in recent years. BACWA has participated in the Workgroup and is finalizing a POTW Fact Sheet. One conclusion of the RMP work is that POTWs contribute much lower microplastic loads than stormwater. • PFAS compounds are getting attention at the Federal and State level. They are ubiquitous at low levels, persistent, and there are not approved methods for wastewater. The State Water Board is planning a 13267 approach to collect data.	• **Continue to participate in the RMP CEC Workgroup and solicit agency participation for future studies.** • Finalize a White Paper for use by the RMP in selecting representative POTWs for participation in CEC studies, and develop a proposal for ongoing monitoring. • Finalize Microplastic POTW Fact Sheet. • Work with CASA and State Water Board on best approach for collecting PFAS data from POTWs.	RMP CEC Workgroup: http://www.sfei.org/rmp/ecwg#tab-1-4 SFEI Microplastics Science Strategy: http://www.sfei.org/documents/microplastic-monitoring-and-science-strategy-san-francisco-bay State Water Board PFAS strategy presentation: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/pfos_and_pfoa/pfas_consolidated_training_040319.pdf
SSS WDR REISSUANCE			
• The State Water Board plans to reissue the SSS WDR in 2020. • 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 regulatory 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 in late 2019/early 2020. • 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/

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
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	• Third Preliminary Draft Regulations that included adopting the TNI standard for laboratories were released for public comment on December 2018. • Adopting TNI standards will pose 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 worked with CASA and CWEA, and signed onto CWEA's comment letter on the previous preliminary draft regulations. • BACWA signed onto a Summit Partners letter recommending that ELAP adopt dual accreditation routes. A group of laboratories have been working on a subcommittee to develop a California-specific QMS. While the majority of ELTAC members voted for a dual-track system, ELAP will not move forward with it unless the vote in favor is unanimous.	• Work with other Regional and Statewide associations to encourage ELAP to consider a California-specific QMS as an alternative certification track. • Comment on next draft of regulations, expected in late 2019. • Work through BACWA's Laboratory Committee to explore ways to mitigate the burden of the new requirements, once adopted.	State Water Board's ELAP page: http://www.waterboards.ca.gov/drinking_water/certlic/labs/elap_regulations.shtml CWEA Comment letter: http://cweawaternews.org/cwea-submits-comment-letter-on-elap-preliminary-draft-regulations/ CASA Comment Letter: https://bacwa.org/document/casa-comments-preliminary-draft-elap-regulations-09-06-17/ Summit Partners Letter on dual accreditation: https://bacwa.org/wp-content/uploads/2018/09/9-6-18-Summit-Partners-ELAP-State-System.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
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 are reporting that they are developing plans for the phase-out than in the 2016 Survey. • The latest draft of proposed regulations were posted on June 17, 2019, with the next draft to be released the beginning of October with adoption in January 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 could be construed as disallowing other treatment technologies and management other than land application. ○ Language that would prohibit local ordinances restricting biosolids land application have 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.	• Consider ways to build a market for compost and other soil amendment products made 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 page: 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% reductions 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 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.	• 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. However, 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. • CARB's previous interest in nitrous oxide emission estimates and/or emission factors for POTWs has shifted to toxic air contaminants. See Toxic Air Contaminants and BAAQMD Rule 11-18. • BAAQMD is developing a suite of Rules under Regulation 13 to control climate pollutants: ○ Rule 13-1 (significant methane releases) - Postponed indefinitely in favor of source specific rules. ○ Rule 13-2 (organic material handling) – Tentative adoption December 2019 ○ Rule 13-3 (composting operations) – Tentative adoption June 2020. ○ Rule 13- 4 (anaerobic digestion and sewage treatment) – Adoption date TBD.	• Work with CASA to look for opportunities for POTWs to help the State meet GHG reduction goals. CASA is helping SWRCB collect information on excess digester capacity at POTWs. The final report will be available in late 2019. • 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.	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 adaption. 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 collection systems and POTWs in the State to better understand to what extent agencies are performing climate change vulnerability assessments. 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 we can provide the information they request as effectively as possible. • Continue to work with Regional Water Board to look for regulatory solutions to encourage wetlands projects for shoreline resiliency. • BACWA plans to comment on Governor's Climate Resilience initiative prior to its release in October 2019.	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 Executive Order N-10-19: https://www.gov.ca.gov/wp-content/uploads/2019/04/4.29.19-EO-N-10-19-Attested.pdf

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
TOXIC AIR CONTAMINANTS AND BAAQMD RULE 11-18			
• 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 development of a statewide criteria and toxic air contaminant reporting, monitoring and reduction program to be implemented by air districts, with the intent to identify and reduce the risk to highly impacted communities. Two of these communities are West Oakland and Richmond. POTWs within these communities may have to accelerate implementation of risk reduction measures.	• BACWA developed a White Paper on the 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 Jan 1, 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 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 Emissions Inventory Subcommittee to address emission contributions from influent flows, which will be used to update emissions inventory values. • Monitor progress of Rule 11-18 Phase 1 implementation via participation in the Working Group. • Track AB 617 regulation development. • Prepare for data request from BAAQMD. BAAQMD will be reaching out to facility contacts towards the end of the year. 60-day turn-around to comply with data request.	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

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. ○ Adds to the procedural burdens in obtaining Wastewater Change Petition. ○ Removes requirement for priority pollutant monitoring. • SF Regional Water Board has decided against transitioning all 96-011 permittees to the State General Order in a single regulatory action. Instead, it will be done in two phases, the first for agencies with Engineering Reports that predate Jan 1, 2001, and the second will be for agencies with Engineering Reports after that date. • To cover recycled water production. However, the Regional Water Board will make the regulatory connections in the NOA, including the following: ○ Title 22 Engineering Report and Report of Waste Discharge references, and include the requirement of operating in accordance with the information provided in these documents; ○ Section in the Notice that lists the associated NPDES permits where applicable; and ○ Monitoring requirements required to determine compliance with Title 22.	• Continue to work with Regional Water Board on a strategy for transitioning 96-011 permittees to the State General Order and ensure that coverage is not interrupted. • **For agencies with Engineering reports that predate 2001, update reports to reflect the most recent guidelines.** • **For agencies with Engineering reports 2001 or later, make sure Regional Water Board has electronic files of documents. Prepare to transition to State General Order by April 8, 2020.**	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
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
NACWA	National Association of Clean Water Agencies
NELAC	National Environmental Laboratory Accreditation Conference
PCB	Polychlorinated Biphenyl
POTW	Publically Owned Treatment Works
PS	Prioritization Score
QMS	Quality Management System
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

ITEM NO. RA6 MICROPLASTICS UPDATE

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

Background
Microplastics are tiny pellets and fragments of plastic, and they have been found to be ubiquitous in the environment. Microplastics find their way to waterbodies through a variety of sources, including wastewater treatment plants, which are not designed to treat them.

Discussion
In 2017, the San Francisco Estuary Institute (SFEI) and nonprofit 5Gyres began a comprehensive study of microplastics in San Francisco Bay, through a grant from the Gordon and Betty Moore Foundation and funding from the Regional Monitoring Program. The two-year study included sampling in the Bay, outside the Golden Gate, and in stormwater and wastewater discharges including EBDA's. The final study was published on October 2, 2019. The Executive Summary is attached, and the complete study can be found here:
https://www.sfei.org/sites/default/files/biblio_files/Microplastic%20Levels%20in%20SF%20Bay%20-%20Final%20Report.pdf.

The study in the Bay found that, as predicted, microplastics are abundant in San Francisco Bay, and both stormwater and wastewater contribute microplastic loads. Interestingly, stormwater contributes 200 times more microplastic loading to the Bay than wastewater. The Bay Area Clean Water Agencies (BACWA) developed a Fact Sheet, which is attached, summarizing key study findings for the wastewater community. A Fact Sheet prepared by SFEI and 5Gyres on the overall study is also attached.

The report was also accompanied by a Policy Recommendations document, found here: https://www.sfei.org/sites/default/files/biblio_files/MooreMicroplastics_PolicyReport.pdf.
Strategies to address microplastics in wastewater effluent are focused on upstream source control. Since much of the microplastic in effluent is microfiber, recommendations include encouraging the textile industry to standardize methods to understand microfiber shedding, and identifying and prioritizing intervention points for microfibers around filtration for washing machines.

EXECUTIVE SUMMARY

SAN FRANCISCO BAY MICROPLASTICS PROJECT

Microplastics (particles less than 5 mm) are ubiquitous and persistent pollutants in the ocean and a pervasive and preventable threat to the health of marine ecosystems. Microplastics come in a wide variety of shapes, sizes, and plastic types, each with unique physical and chemical properties and toxicological impacts. Understanding the magnitude of the microplastics problem and determining the highest priorities for mitigation require accurate measures of microplastic occurrence in the environment and identification of likely sources.

To develop critical baseline data and inform solutions, the San Francisco Estuary Institute and the 5 Gyres Institute have completed the first comprehensive regional study of microplastic pollution in a major estuary. This project supported multiple scientific components to develop improved knowledge about and characterization of microparticles and microplastics in San Francisco Bay and adjacent National Marine Sanctuaries, with the following objectives:

1. Contribute to the development and standardization of sample collection and analysis methodology for microplastic research.
2. Determine a baseline for future monitoring of microplastics in San Francisco Bay surface water, sediment, and fish, and in ocean waters outside the Golden Gate.
3. Characterize pathways by which microplastics enter the Bay, including urban stormwater and treated wastewater effluent.
4. Investigate the contribution of Bay microplastics to the adjacent National Marine Sanctuaries through computer simulations.
5. Communicate to regional stakeholders and the general public through meetings and educational materials.
6. Facilitate evaluation of policy options for San Francisco Bay, with recommendations on source reduction.

This document presents the findings of this three-year project. A companion document, "San Francisco Bay Microplastics Project: Science-Supported Solutions and Policy Recommendations," has been developed by 5 Gyres using the findings of this study (Box and Cummins, 2019).

Our findings

In this report, we have distinguished between microparticles, which are small particles (less than 5 mm) that are visually identified as potentially plastic, and microplastics, which are confirmed to be plastic through Raman or Fourier Transform Infrared (FTIR) spectroscopy. This distinction is necessary because it was not possible to examine every microparticle via spectroscopy to confirm particle composition. Moreover, for some particles, clear spectra were not easy to obtain.

Microparticles and microplastics come in a range of sizes, and the lower size limit of microplastics within a sample is operationally defined by the mesh, sieve, or filter pore size used in sample collection and analysis. We quantified microparticles using sieves with a mesh size of 0.125 mm for stormwater, wastewater, and sediment. For surface water, the standard manta trawl sample collection method typically captures particles greater than 0.355 mm, whereas for prey fish, it is possible to collect far smaller particles. When smaller size fractions are included, the overall number of microparticles and microplastics in a sample can increase significantly. To facilitate comparisons among these different types of samples, particles were grouped into uniform size categories during laboratory analysis.

STORMWATER

We measured microparticles and microplastics in stormwater from 12 small tributaries comprising 11% of the watershed drainage area to San Francisco Bay (6% of total flow to Bay). These tributaries varied in urban and non-urban land uses and were distributed across the region. Microparticles were identified in stormwater from all 12 small tributaries, which discharged between 1.3 and 30 microparticles per liter. Fragments (59%) and fibers (39%) constituted nearly all microparticles sampled.

Nearly half of the particles from field samples were black fragments that had a distinctive rubbery texture when handled with tweezers. Spectroscopic analysis and secondary characteristics suggested these particles may be synthetic or natural rubber. This identification is not definitive, as other techniques beyond the scope of this project are needed to confirm the particle composition. For purposes of this report, these polymers are considered a type of plastic, a common approach in the field of microplastics. The literature suggests that one potential source of these particles is vehicle tire wear.

Using an existing stormwater model developed for other contaminants, we estimated the annual discharge of microparticles via stormwater from small tributaries to be 11 trillion microparticles to the Bay. Approximately two thirds of these microparticles were estimated to be plastic, yielding an estimated annual discharge of 7 trillion microplastics per year. This estimate of microplastic load is approximately 300 times greater than the estimated annual discharge from all wastewater treatment plants discharging into San Francisco Bay.

TREATED WASTEWATER

We measured microparticles and microplastics in treated wastewater from eight wastewater treatment facilities that represent approximately 70% of the treated effluent flow discharged to San Francisco Bay. These facilities are geographically distributed, vary in effluent treatment capacity, and employ a range of treatments. Microparticles were identified in effluent from all eight facilities, which discharged an average of 0.063 microparticles per liter. Fibers were the most frequently identified type. While 19% of the fibers were unmistakably plastic, another 50% were clearly manufactured due to the presence of dyes and coloring agents, but could not be definitively identified as plastic or non-plastic. Fragments were the second most abundant shape, and of those that underwent spectroscopy, 54% were identified as plastic, with most being polyethylene (31%).

In aggregate, approximately 91 million microparticles per day are discharged by the eight facilities. Facilities employing advanced treatment including dual media filtration had lower microparticle concentrations than facilities without this additional treatment, suggesting that enhanced treatment may reduce microparticles as well as other pollutants. Assuming similar discharges among the remaining facilities, approximately 130 million microparticles are discharged per day to the Bay in treated wastewater effluent, or approximately 47 billion microparticles annually, of which 17 billion are estimated to be plastic. This is substantially lower than the estimate developed for the annual microplastic load from the small tributaries surrounding the Bay.

SURFACE WATER

We collected surface water samples at 17 monitoring sites throughout San Francisco Bay and 11 monitoring sites within Monterey Bay, Cordell Bank, and Greater Farallones National Marine Sanctuaries. Each site was sampled twice, once during the dry season and again during the wet season following rainfall events.

Microparticles were identified in all manta trawl samples, with higher abundances overall in the Bay than in the adjacent marine sanctuaries. Levels of microparticles in the Bay are some of the highest observed globally to date. The dominant particle type was fibers, followed by fragments, with 53% of fibers and 87% of fragments identified as plastic. The composition of many fibers could not be determined, though the presence of dyes and coloring agents indicated that they were anthropogenic in origin.

Apart from fibers, polyethylene and polypropylene fragments, polystyrene foams, and polyethylene and polypropylene films made up a majority of the microparticles that underwent spectroscopy. These polymer and particle types may be linked to the breakdown of single-use plastic items, packaging, and plastic bags. Polyethylene beads were also identified in the surface waters, possibly linked to microbeads found in personal care and cleaning products.

Wet season Bay samples contained statistically higher concentrations of microparticles compared to dry season samples, suggesting that wet weather may mobilize microplastics from the surrounding watershed. Within the Bay, the wet season average abundance for non-fiber particles was 520,000 microparticles/km^2, while the average for fibers was 580,000 microfibers/km^2. A statistically significant seasonal effect was not observed in the sanctuaries, likely due to the low abundance of microparticles observed.

Manta trawl sample collection is not an ideal method for capturing fibers. Sampling methods designed to collect more representative levels of fibers, as well as especially small particles, were deployed at some sites to test their effectiveness. However, field blank samples collected and analyzed to monitor background contamination for these sampling techniques had high levels of microparticles, especially fibers. This suggests the need for sampling larger volumes and provides further evidence of the impacts of background contamination from fibers on data quality.

SEDIMENT

We collected sediment samples at 20 sites, including 18 within San Francisco Bay and two in Tomales Bay, which has minimal urban influence. Sites were selected to characterize microplastic concentrations near discharges of stormwater and wastewater in the nearshore "margins" of the Bay, in open portions of the Bay, and in a less urban reference area (Tomales Bay).

Microparticles were identified in sediment from all 20 sites. Fibers, followed by fragments, were the most abundant type of microparticles in Bay sediment, with detected concentrations ranging between 1 and 49 microfibers per gram dry weight (dw), and between 0.1 and 11 non-fiber microparticles (including fragments, films, spheres, and foams) per gram dw. The highest concentrations of microparticles were measured in Lower South Bay, which is strongly influenced by wastewater and urban stormwater discharges. Concentrations at the reference site, Tomales Bay, were among the lowest observed in the study.

Black fragments that had a rubbery texture were frequently detected in sediment samples. Spectroscopy was unable to identify the composition; however, based on secondary characteristics, these particles were similar to particles that had been previously identified as rubber by FTIR spectroscopy. These particles were also similar to the black, rubbery fragments that were abundant in stormwater, suggesting that stormwater is an important pathway for microparticles to reach Bay sediment, and that inputs from tire wear and perhaps use of recycled tires (e.g., artificial turf) may also merit further investigation.

Microparticle and microplastic concentrations in the Bay sediment were higher than those reported in the majority of other regions around the globe.

PREY FISH

To evaluate the uptake of microplastics into the food web, two prey fish species, topsmelt and Northern anchovy, were sampled at six sites in the Bay, as well as two sites in a less urban reference area (Tomales Bay). At each site, approximately 10 fish of each species were collected, and the digestive tracts were analyzed for microparticles and microplastics.

Microparticle levels in fish from San Francisco Bay were higher than levels in fish from Tomales Bay. Fibers were particularly abundant; while most fibers were dyed and therefore produced by people, few could be identified conclusively as plastic. At least 38% of fish from the Bay had consumed microparticles.

The estimated average number of microplastics was between 0.2 and 0.9 non-fiber microplastics per fish and between 0.6 and 4.5 plastic fibers per fish. While fibers were detected in all fish from the Bay regardless of species, non-fiber microparticles were more frequently detected in topsmelt compared to anchovies. The microplastic counts and detection frequencies in the Bay were comparable to counts reported in many other locations.

While toxicological evaluation was not a part of this study, these results indicate that microplastics are entering Bay food webs. Microplastics have been shown to transfer up food chains and cause adverse effects in fish, but the magnitude and types of effects are difficult to predict because of the diversity of microplastic morphologies and compositions. There is a need for further ecotoxicological studies that evaluate the effects of microplastics at environmentally relevant concentrations. However, even with more ecotoxicological data, establishing risk thresholds will be challenging given the heterogeneous nature of this class of contaminants.

TRANSPORT MODEL

A novel three-dimensional hydrodynamic transport model was developed to simulate microparticle and microplastic movement in the Bay and the adjacent marine sanctuaries. The model was validated and accurately captured water surface elevations, velocities, and salinity. This model is unique in its spatial coverage from small scale (e.g., meters) in sloughs and mud flats within the Bay to shelf-scale (e.g., tens of kilometers) dynamics in the coastal ocean. The transport model includes the effects of wind and tides, as well as inflows from stormwater, wastewater, and freshwater from the Sacramento-San Joaquin River Delta.

The model incorporated estimated microparticle and microplastic loads from stormwater and wastewater, and simulated particle trajectories throughout the Bay and into the coastal ocean. The rising and settling characteristics of particles were estimated based on laboratory measurements of chemical composition, shape, and size.

Model output was analyzed to estimate spatial distributions of predicted surface water concentrations and potential deposition to sediment, as well as time scales for particles to be exported from the Bay. The fate of microplastics was found to be highly sensitive to particle buoyancy, and even minimal sinking rates led to retention of particles within the Bay. The model indicated that, for microplastics originating in San Francisco Bay, only buoyant particles were likely to travel any significant distance beyond the Golden Gate and into the nearby National Marine Sanctuaries. The transport model and the manta trawl particle abundance data were in good agreement, showing that the average abundance of particles was higher in the Bay than in the coastal ocean. Good agreement was also observed between the model-predicted microparticle abundances near the bottom of the Bay and measured sediment concentrations, showing the greatest abundance of microparticles in Lower South Bay.

CONCEPTUAL MODEL AND DATA SYNTHESIS

We refined a conceptual model of major pathways of microplastic pollution for San Francisco Bay, including a comprehensive review of likely sources to urban stormwater runoff and treated wastewater discharges. This study synthesis indicated identification of specific plastic polymers is essential for pinpointing potential sources of microplastics, as well as predicting the movement of these particles within and through estuarine ecosystems.

Comparison of urban stormwater and wastewater indicated that beyond the large differences in estimated loads to the Bay, there were also considerable differences in relative proportions of different polymers. The large contribution of black, rubbery fragments was a dominant feature in urban stormwater samples. Meanwhile, wastewater samples indicated influence from multiple sources, including plastics used in textiles (acrylic, polyester), as well as microbeads in personal care and cleaning products and microplastics likely derived from the breakdown of larger single-use items (polyethylene).

Comparison of surface water and sediment samples likewise indicated that polymer type was generally the most influential variable in determining whether relative contributions of different types of microplastics were preferentially concentrated in one matrix or the other. Buoyant polymers and foams were more likely to be found in surface water, while denser particles were often found in sediment.

Key data gaps for San Francisco Bay remain, including additional information on the sources and pathways of microplastics, the exposure of Bay aquatic organisms and associated risk for adverse impacts, more comprehensive information resulting from essential improvements in methodology, and the effects of current and future solutions implemented to reduce microplastic pollution.

LESSONS LEARNED: RECOMMENDED BEST PRACTICES FOR FUTURE STUDIES

The field of microplastics pollution is in its infancy, and there are not yet widely accepted standards for sample collection, laboratory analysis, quality assurance/quality control (QA/QC), or reporting of microplastics in environmental samples. This project included the development of recommended best practices for collection, processing, analysis, and reporting microplastics in environmental media. We recommend factors to consider in microplastic study design, particularly in regards to site selection and sampling methods. We also highlight the need for standard QA/QC practices such as collection of field and laboratory blanks, use of methods beyond microscopy to identify particle composition, and standardized reporting practices, including suggested vocabulary for particle classification.

BACWA
BAY AREA
CLEAN WATER
AGENCIES

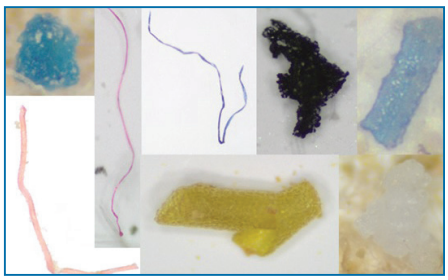
MICROPLASTICS FACT SHEET

Microplastics, which are plastic particles less than 5 mm in size, are found in many water bodies world-wide and are viewed as a contaminant of emerging concern (CEC) in San Francisco Bay. The San Francisco Estuary Institute (SFEI), partnered with the 5 Gyres Institute, are the lead scientific bodies investigating microplastic contamination in the San Francisco Bay. The two entities are collaborating with several other scientific and academic institutions in furthering science knowledge about analytical methods, sources, and effects of microplastics on the environment. The San Francisco Bay Regional Water Board is engaged in these scientific investigations, but is not currently proposing regulatory actions, pending the availability of more scientific information as to whether microplastics pose a threat to aquatic life and water quality.

METHODS OF DETECTION

Development of standard methods will allow comparison among studies to identify areas of concern and trends that can inform policy and management actions. The analytical methods used in early work studying microplastics in the San Francisco Bay did not differentiate plastics from naturally derived microparticles. As scientists began to use spectroscopy to identify the composition of individual particles, it became clear that accurately identifying a microparticle as a microplastic was going to be very challenging, expensive and time consuming.

- Method standardization is a high priority, and is underway. Recent legislation, SB1263, requires the Ocean Protection Council to develop methods as part of a Statewide Microplastics Strategy. The Southern California Coast Water Research Project (SCCWRP) is recruiting Publicly Owned Treatment Works (POTW) labs for method development assistance.



Particles cannot be identified as plastic by visual inspection.

- Because the extraction and identification of microplastics is labor-intensive, only a small subset of the total microparticles collected in recent studies have been analyzed.
- Standard spectroscopy techniques such as Fourier Transform-Infrared (FTIR) and Raman must be used in tandem with microscopy in order to tackle microparticles with a size of less than 1 mm. Micro-FTIR and Micro-Raman instruments are significantly more expensive than traditional spectroscopes and require special training.
- Even with spectroscopy, in many cases it continues to be practically impossible to differentiate between natural and plastic fibers, especially if they are dyed.

MICROPLASTICS FACT SHEET

IMPORTANCE OF DIFFERENT SOURCES

Building on the scientific efforts to accurately identify microplastics and their potential negative impacts on the environment, it will be essential to identify the sources of microplastics. Accurate source apportionment will inform the most cost-effective means for reducing microplastics.

- Results of 24-hour composite sampling at eight Publicly Owned Treatment Works (POTWs) in 2017 showed that advanced secondary wastewater treatment plants had lower microparticle counts than plants without filtration. However, the total counts in effluent are still millions per day. In aggregate, it is estimated that approximately 47 billion microparticles are discharged annually to the San Francisco Bay by POTWs, of which 17 billion are estimated to be plastic.
- It is estimated that stormwater contributes approximately 300 times more microplastics to the San Francisco Bay than POTWs. Tire fragments are a large component of the stormwater microparticle load.
- Atmospheric deposition is a potential source, but is poorly understood.

TYPES OF MICROPARTICLES IN POTW EFFLUENT

It is important to understand the types of microplastics found in POTW effluent to better characterize and address their sources.

- The majority of microparticles discharged by POTWs are fibers, followed by fragments, then foam.
- Most fibers could not be identified as either natural or synthetic because the dyes mask the signal of the material.
- Of the fragments, 54% were positively identified as plastic.

POLICY ISSUES

As the science matures on identification of microplastics and their impact on the environment, policies will need to be developed that address the issue. Current policy thinking focuses on pollution prevention rather than end of pipe treatment at POTWs.

- Due to persistence, increasing use, and lack of known toxicity thresholds, the Regional Monitoring Program, through SFEI, is following a proposed European Union classification, and placing microplastics in the "moderate concern" tier within the Tiered Risk-Based Framework for CECs in San Francisco Bay.
- Recommendations for reducing microfibers in POTW effluent do not focus on end-of-pipe treatment. Instead they include regulatory and legislative advocacy to address sources, public education to reduce the introduction of plastic material into the environment, the development of clothing sheddability standards, as well as more study of washing machine filtration alternatives.

BACWA
BAY AREA
CLEAN WATER
AGENCIES

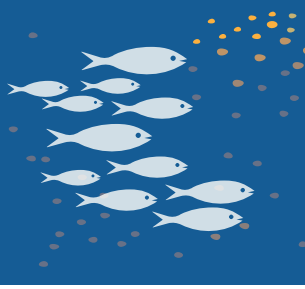
SAN FRANCISCO BAY MICROPLASTICS PROJECT

We found microplastic pollution in every part of the Bay, at some of the highest levels measured anywhere to date.

What are microplastics?

- Microplastics are plastic particles smaller than 5 mm (the size of a popcorn kernel).
- Plastic trash never goes away, it just breaks up into smaller pieces.

- When wildlife eat microplastics, these tiny plastic bits can block and damage organs and leach potentially harmful chemicals. Microplastics and chemicals can transfer up the food chain.



How do microplastics get into the Bay?

STORMWATER

Urban stormwater runoff carries microplastics, trash, and other pollutants down storm drains and into creeks and rivers that flow into the Bay.

LIKELY SOURCES: tires, textiles, single-use plastic items, cigarette filters, construction and roadway debris

SURFACE WATER

More buoyant microplastics float on the surface of the Bay and are transported into the ocean and nearby National Marine Sanctuaries.

LIKELY SOURCES: textiles, single-use plastic items, fishing and marine debris, pre-production plastic pellets

WASTEWATER

Microplastics that go down residential and industrial drains and toilets are too small to be easily filtered by wastewater treatment plants. Many flow directly into the Bay.

LIKELY SOURCES: textiles, microbeads in personal care and cleaning products, baby wipes

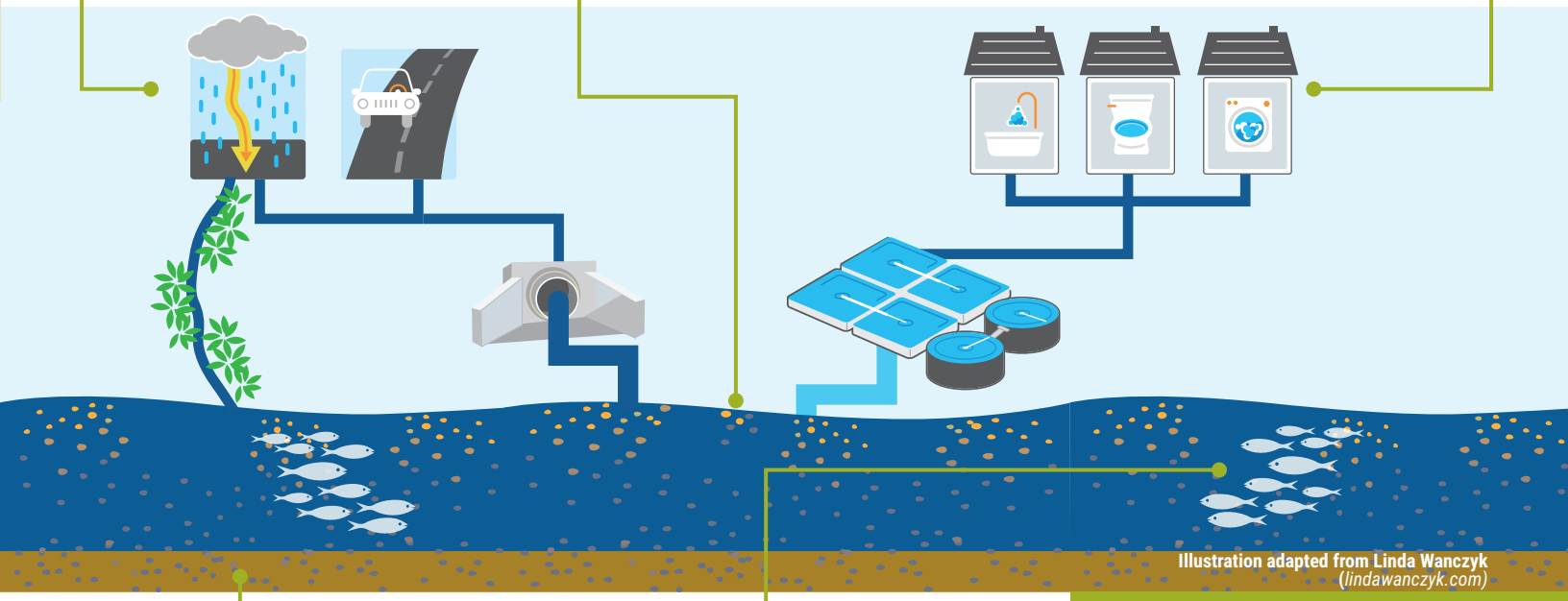


Illustration adapted from Linda Wanczyk (*lindawanczyk.com*)

SEDIMENT

Denser microplastics sink and accumulate in the sediment on the bottom of the Bay.

LIKELY SOURCES: tires, textiles, single-use plastic items

SMALL FISH

Aquatic life in the Bay can ingest microplastics in water and sediment, or eat organisms that have already consumed microplastics.

LIKELY SOURCES: textiles, single-use plastic items

Read the full report:
sfei.org/projects/microplastics

Learn about all of the proposed solutions:
5gyres.org/sfbay-microplastics

Science-informed solutions

1

Support comprehensive state and local policies that phase out single-use plastics and packaging.

San Francisco and other cities are working to reduce single-use plastics such as cups and to-go containers. Berkeley's disposable-free dining ordinance is a model for other communities.

California's Circular Economy Bill proposes to reduce waste from single-use packaging and products by 75% by 2030.

The science behind this recommendation:

Microplastics are present in every part of the Bay, including water, fish, and sediment.

The Bay contains especially high levels of microplastics. Levels in Bay surface waters are some of the highest recorded globally.

Computer modeling indicates that buoyant particles can flow to the ocean, while heavier particles concentrate in Bay sediment.

2

Use rain gardens and landscape design to reduce microplastics in creeks.

Green stormwater infrastructure, such as rain gardens, permeable paving, and other nature based stormwater filtration solutions have been successfully used to clean runoff.

The science behind this recommendation:

Urban stormwater runoff transports over 300 times more microplastics to the Bay than wastewater.

Each year, stormwater transports an estimated 7 trillion microplastics through creeks and streams to the Bay. Nearly half are black rubbery fragments, which may be tire particles washed from roads.

A related study by SFEI showed that a rain garden removed 90% of microplastics from urban stormwater runoff.

Below, rain garden in El Cerrito by BART tracks

Photo by Shira Bezalel, SFEI

3

Explore filtration on washing machines to prevent fibers from entering wastewater.

Design a study to evaluate the effectiveness of filters on residential, industrial, and commercial washing machines.

At the same time, educate people about ways to prevent fibers from entering the Bay: wash clothing less frequently, use a front-loading washing machine, and consider installing a filter.

The science behind this recommendation:

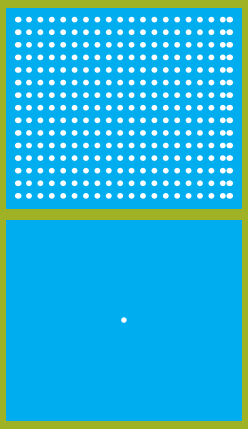
Fibers were the most common microplastics found in this study. One way fibers enter wastewater is through laundering of clothing and textiles.

Approximately 17 billion microplastics enter the Bay from wastewater treatment plants annually, including many fibers.

Fibers appear to be the main microplastics eaten by fish, making them a focus for future studies on toxic impacts.

HIGHLIGHTS FROM THE STUDY

STORMWATER
HAS
300
TIMES
MORE
MICROPLASTICS
THAN
WASTEWATER



SURFACE WATER
SAMPLES
HAVE
DIVERSE
MICROPLASTICS

- POLYSTYRENE FOAM
- POLYETHYLENE FILM
- POLYPROPYLENE AND POLYETHYLENE FRAGMENTS
- POLYETHYLENE MICROBEADS

FOAM CUPS & FOOD **CONTAINERS**

SINGLE -USE FOODWARE

PLASTIC CARRYOUT **BAGS**

NURDLES & CIGARETTE BUTTS

PERSONAL **CARE** PRODUCTS

Types of microplastics

Fiber • thin, straight, or fibrous particle from textiles, fishing gear, cigarette filters

Fragment • irregularly shaped particle often associated with the breakdown of single-use plastic items and tires

Foam • lightweight sponge-like particle often used in food packaging and shipping material

Film • thin plane of flimsy material often from plastic bags and plastic packaging

Sphere or Pellet • hard, round particle including microbeads in consumer and personal care products and nurdles (pre-production pellets)

Photo by Carolynn Box, 5 Gyres

Using science to inform action

Ask your representatives to support comprehensive local and statewide policies to reduce single-use plastics and packaging.

Share our project results and recommendations.

Reduce single-use plastics and encourage others to do the same.

Why is this important?

Plastic is a persistent pollutant, meaning it never goes away, and companies are making more each year.

Scientists are still learning how microplastics can harm humans and aquatic life.

Get the latest information at www.5gyres.org

What is California doing now?

California is leading the nation in plastic pollution reduction efforts, with other communities looking to us for guidance.

California's Trash Amendments set the bar high with a goal of zero trash (debris larger than 5 mm) in any ocean waters, bays, or rivers by 2030, ***but this does not include microplastics.***

California is developing the first ever statewide Microplastics Strategy that will set research goals and identify policy options to reduce microplastic pollution.

Need more data to support your plastic reduction campaign? Use the TrashBlitz app to identify top trash items and share them with city officials.
www.trashblitz.org

trashblitz
POWERED BY 5GYRES

Photo by Carolynn Box, 5 Gyres

SAN FRANCISCO BAY MICRO PLASTICS

About the project and the minds behind it

The San Francisco Bay Microplastics Project generated comprehensive data on microplastics, leading to scientifically supported recommendations for solutions to plastic pollution in California.

The 5 Gyres Institute empowers action against the global health crisis of plastic pollution through science, education, and adventure.

5 GYRES
SCIENCE TO SOLUTIONS

www.5gyres.org @5gyres @5gyres @5gyres

San Francisco Estuary Institute provides independent science to assess and improve the health of the waters, wetlands, wildlife, and landscapes of San Francisco Bay, the California Delta and beyond.

SFEI San Francisco Estuary Institute

www.sfei.org @sfei_asc @sfestuaryinstitute

ITEM NO. RA7 CASA PFAS FACT SHEET

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

Background
As discussed with the Committee in August, Per- and Polyfluoroalkyl substances (PFAS) are a group of fluorinated manmade compounds that are resistant to heat, water, and oil. They are used in a wide range of consumer products designed to be waterproof, stain-resistant, or non-stick, including carpets, furniture, cookware, clothing, cosmetics, and food packaging. PFAS also are used in fire retardant foam at military bases and airports and industrial processes involving flammable and combustible liquids. PFAS are resistant to chemical breakdown, soluble, and highly mobile in soil and water. Several individual compounds, including perfluoroocatnesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) were phased out of production in the US, however, they still persist in the environment.

PFAS are reported to have a variety of adverse health effects including cancer, elevated cholesterol, obesity, immune suppression, and endocrine disruption, which are driving public pressure for regulators to take action.

Discussion
No regulations on PFAS in wastewater effluent or biosolids have been proposed; however new drinking water notification levels have been adopted in California.

The California State Water Resources Control Board (State Water Board) recently began a state-wide phased investigation of PFAS. Phase one required airports, where they may have used fire retardant foam containing PFAS and municipal solid waste landfills, to sample their sites, along with nearby drinking water wells. Phase two requires primary manufacturing facilities, refineries, bulk fuel storage terminals, non-airport fire training locations, and recent urban wildfire areas to conduct sampling. Finally, in phase three, expected to commence in early 2020, the State Water Board will target wastewater treatment plants and domestic wells. The California Association of Sanitation Agencies (CASA) and Bay Area Clean Water Agencies (BACWA) have been working proactively with State Water Board staff to encourage a thoughtful approach to studying PFAS in effluent and biosolids. The associations have recommended targeted sampling rather than blanket data collection at all wastewater facilities, and State Water Board staff has seemed receptive.

CASA developed the attached fact sheet to provide context to the issue of PFAS in wastewater and biosolids.

PFAS
FACT SHEET

CASA
CALIFORNIA ASSOCIATION OF SANITATION AGENCIES

What Are PFAS?

Per and polyfluoroalkyl substances (PFAS)[1] are a group of man-made fluorinated compounds which are used for a variety of applications by both industry and residential households. These chemicals are widely used because they are resistant to heat, water, and oil. **PFAS are commonly found in every American household, and in products as diverse as:**

PFAS have been in commercial use since the 1940's and are abundant in today's society. Two of the most common types (PFOS and PFOA) were phased out of production in the United States in 2002 and 2015 respectively, but are still present in some imported products. PFOA and PFOS are found in every person's blood stream in the parts per billion range, though those concentrations have decreased by 70% for PFOA and 84% for PFOS between 1999 and 2014, which coincides with the end of the production and phase out of PFOA and PFOS in the United States.[2]

PFAS Are Ubiquitous in Our Homes and Our Environment

Several recent legislative and regulatory efforts across the US to address PFAS have focused on limiting levels in drinking water. However, there has been relatively little conversation about the presence of these chemicals in our everyday lives. In several studies, the mean and median concentration of PFOA in household dust in the United States was found to be between roughly 10,000 and 50,000 parts per trillion (ppt)[3]. **This means there is significantly more PFAS in the ambient dust in the average home than the levels currently being discussed as thresholds for drinking water.** Not only are PFAS part of the air we breathe and the products we use, but they have also been found in the food we eat. In other words, there are numerous human exposure pathways for PFAS beyond drinking water.

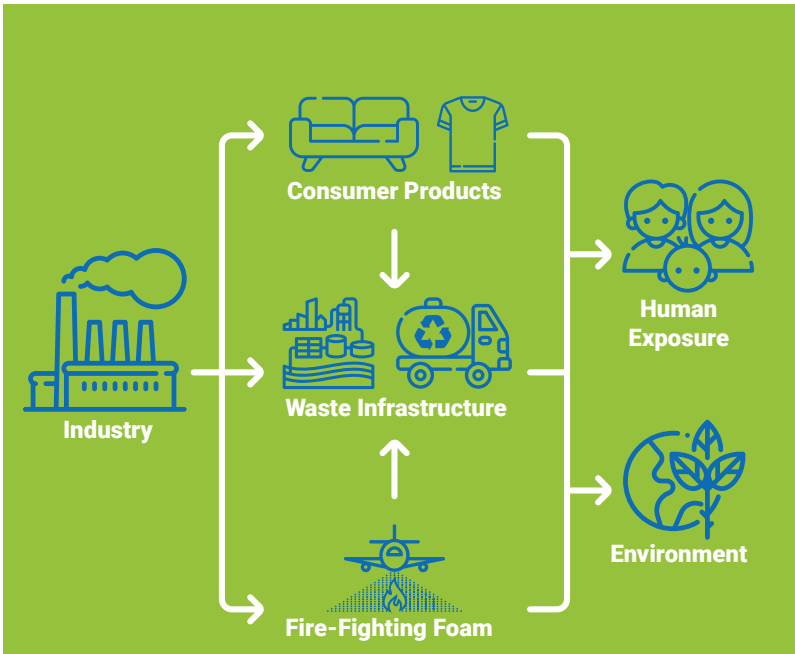
Importance of Human Health Protection

Agencies providing essential public services such as safe drinking water, wastewater treatment, water recycling, and biosolids recycling firmly believe in our **collective mission to ensure safe drinking water and sanitation services.** We also acknowledge and embrace our role as environmental and public health stewards and the responsibility of providing a healthy and clean environment now and for future generations. To that end, agencies would be in support of actions and regulations intended to ensure delivery of those services as long as they are based on credible science and developed after due deliberation. There is concern that in the case of PFAS, notification levels, thresholds, and in some cases limits are being developed in advance of the scientific and public process.

PFAS Producers and Heavy Users Are Not the Same as PFAS "Receivers"

Drinking water treatment systems and wastewater treatment facilities are not "producers" or users of PFAS, and **none of these essential public service providers utilize PFAS chemicals. Rather, they are "receivers" of these chemicals used by manufacturers and consumers, and merely convey or manage the traces of PFAS that we encounter in our daily lives.**

In order to address the true sources of these chemicals, discontinuation of production and use (both domestic and foreign) is necessary at manufacturing facilities and heavy use areas such as firefighting training sites. As long as PFAS are elements of products used in our everyday lives, and as long as background levels resulting from decades of manufacturing and use persist, they will continue to be found in the "receiver" streams.



Placing PFAS in Context: Distinguishing Contaminated Sites and Background Levels

Recent legislative and regulatory efforts to address PFAS have tended to not differentiate between concentrations at producer and heavy user contaminated sites and common background levels in drinking water, groundwater, recycled water, wastewater, or biosolids. The levels of PFAS found in these two scenarios are dramatically different. Sites found near manufacturers of PFAS can have levels of contamination at 100,000 to 500,000 ppt. At fire-fighting training sites, including military complexes, levels can be as high as 6,950,000 ppt.[4] In these circumstances, it is clear that the producers and heavy users of PFAS have caused or contributed to the contamination of sites that need to be addressed. **In contrast, the action levels currently being discussed for drinking water systems range from 5–40 ppt, an exceptionally small fraction of the concentrations found at highly contaminated sites.**

Because of this vast disparity in relative contributions, product manufacturer responsibility and stewardship, as well as cleanup and remediation at highly contaminated sites, are the most efficient and effective methods of addressing these chemicals and protecting human health and the environment.

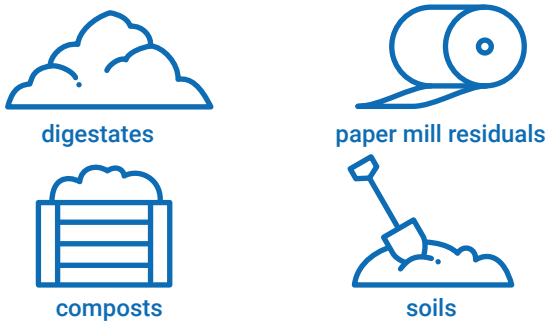
Drinking Water Thresholds and Unintended Consequences

The USEPA has set an advisory level of 70 ppt individually or combined for PFOA and PFOS in drinking water and is currently evaluating the need to develop maximum contaminant levels (MCL) for these and possibly other PFAS compounds. **For perspective, one part per trillion is the equivalent of four grains of sugar in an Olympic sized swimming pool, or the equivalent of one second in 32,000 years.** Even as EPA's work continues, states have begun setting their own PFAS standards for drinking water at a rapid pace and without following some of the usual regulatory and scientific review and public involvement procedures.

The public and political concern about PFAS is leading several states to move forward with regulatory standards or notification levels while the science is still developing. For example, the California State Water Board has established notification levels of 6.5 ppt for PFOS and 5.1 ppt for PFOA in drinking water, while other states have adhered to the USEPA health advisory level of 70 ppt for both combined. States adopting different standards for the same compounds can create confusion and risks undermining public confidence at a time when greater consistency is needed. **In fact, stringent state requirements could have significant unintended impacts on public municipalities and individuals, as numerous public systems could be deemed unusable and/or need to install expensive additional treatment systems.**

Background Levels of PFAS in Wastewater Effluent, Recycled Water and Biosolids

Strict PFAS standards for drinking water could also ultimately impact discharge limits on wastewater treatment plants, recycled water, and biosolids. Because PFAS are ubiquitous in households, consumer products, food, and the environment generally, they will typically make their way into the wastewater stream. After treatment, trace amounts of PFAS may also be found in biosolids. Of course, PFAS are also found in:



Given the ubiquity of PFAS, and the comparative background levels which may be found in wastewater and biosolids, setting requirements near analytical detection limits on these sources may not provide a discernable benefit to public health.

A Measured, Scientifically Sound Response to PFAS Contamination is Needed

Legislators, regulators, drinking water agencies, wastewater agencies, and others should work collaboratively to examine how to deal with PFAS holistically, with science guiding the decision making. We acknowledge and embrace our role as public health and environmental stewards to ensure safe drinking water and sanitation services. However, we know that science is still evolving to understand the fate, exposure, and toxicity of PFAS from environmental media, and the basic analytical methods needed to study these chemicals are still in development for media other than drinking water. Even the extent of human health impacts is not fully understood. This underscores the need to better understand the science and real world risk before setting exceedingly stringent thresholds or limits.

The goal should be to determine the most effective steps needed to reduce human exposure and implement them within the broad context of protecting human health. This requires differentiating high concentration sites from background concentrations and taking action to mitigate concentrations at high use sites. It also demands both a reassessment of products we produce and use daily, and a realistic assessment of how much any action is able to control PFAS already in the background environment. The most significant action we need to take today is to remove these chemicals of concern from the stream of commerce. Source reduction and pollution prevention can serve as the most efficient means of addressing persistent background presence of PFAS and effectively limit the occurrence of PFAS going forward.

1. PFAS is the broader class of chemicals that includes PFOA, PFOS, and many others.
2. Centers for Disease Control and Prevention. Fourth Report on Human Exposure to Environmental Chemicals, Updated Tables, (January 2019). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. cdc.gov/exposurereport
3. Trudel et al., Risk Analysis Vol. 28 No. 2, 2008
4. ewg.org/interactive-maps/2019_pfas_contamination/map

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

A Joint Powers Public Agency

ITEM NO. 16

OPERATIONS & MAINTENANCE COMMITTEE AGENDA

Tuesday, October 15, 2019

10:30 A.M.

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

Committee Members: Cutter (Chair); Walters

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 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 O&M Committee meeting will be held
Tuesday, November 19, 2019, at 9:00 a.m.

ITEM NO. OM4 EBDA PERFORMANCE

The detailed package is included in the Regulatory Affairs Committee agenda. The NPDES report shows that EBDA continues to operate within the normal compliance range.

Please see the Regulatory Affairs Committee agenda, Item No. RA4 for the August permit compliance data.

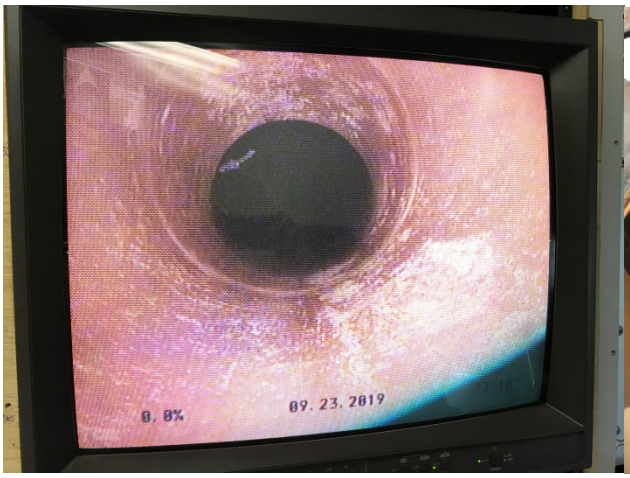
ITEM NO. OM5 STATUS REPORT

Alvarado Effluent Pump Station (AEPS)

Pump Cavitation Study & Station Optimization
On September 23, 2019, EBDA received the Draft Cavitation Study Project Memorandum. EBDA will provide comments to Carollo and, after the comments are incorporated, the report will be sent to the MAC for review and a meeting will be scheduled with USD staff to review the memorandum.

Hayward Effluent Pump Station (HEPS)

Motor Control Center (MCC) Replacement Project
GSE Construction, Inc. (GSE) and Central Sierra Electric (Central Sierra) completed installation of new valves on the discharge piping from each of the four pumps at HEPS. The installation of the valves on Pumps No. 2, 3, and 4 required two shutdowns of the pump station to complete. During the second shutdown, the pump station discharge header was drained and COH staff inspected the inside of the above ground discharge header and a portion of the underground force main. The force main was observed to be in good condition, but the above ground discharge header was found to have coating issues with the top half of the pipe. This finding was consistent with Brown & Caldwell's previous inspection at HEPS.



Underground Force Main

Above Ground Discharge Header

After the new valves were installed, Frank Olsen Co. assisted with calibration and testing. Central Sierra and KBL Associates connected the new valves and the existing pumps to the new Programmable Logic Controller (PLC). Calcon integrated all existing pumps and new valves into the new PLC.

GSE completed excavation and installation of the new HDPE pond diversion piping from the pump station header to the previously installed underground pipe. This section of the diversion pipe was intentionally installed later because it was located under the old PG&E transformer. The old transformer was removed after the new electrical service was installed, thus allowing installation of the remainder of the pipe.

HDPE Pond Diversion Piping

GSE also poured concrete pads which will support the new stairs leading into the MCC building and installed handrails on the dissipator structure.

Upcoming activities include demolition of the old HEPS MCC and PLC, grading and paving, and installation of the permanent fence around the pump station. The project is expected to be substantially complete by mid-November.

Oro Loma Effluent Pump Station (OLEPS)

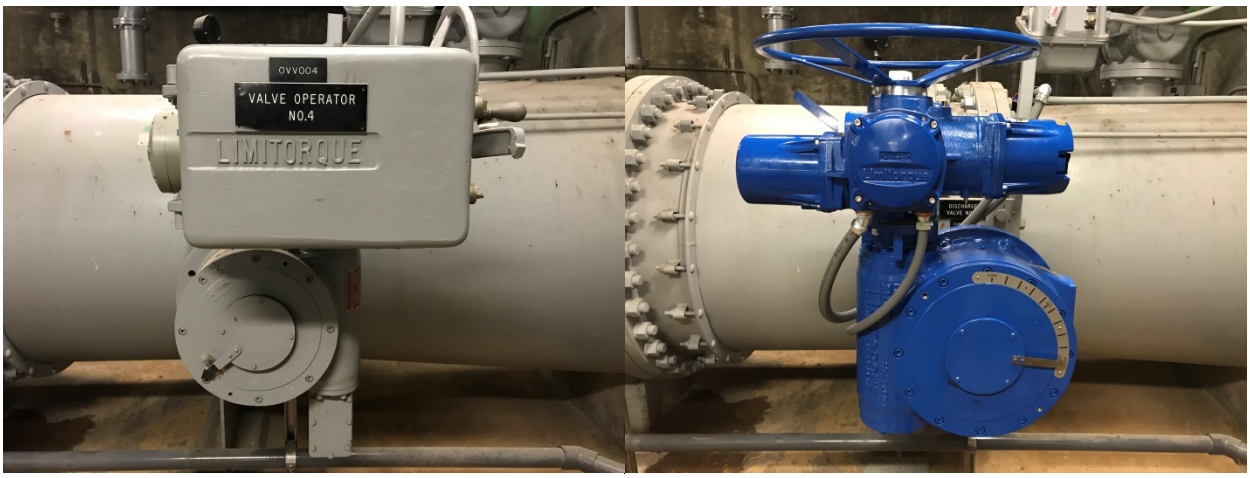
Wet Well Preventative Maintenance Activities

During the weeks of September 16th and 23rd, staff coordinated with the OLSD Operations and Maintenance Departments to isolate and pump down the North and South wet wells at OLEPS to facilitate preventative maintenance activities and to install new discharge valve gear drives and actuators for the No. 1 & 4 Effluent Pumps.

While the wet wells were pumped down, the OLSD Maintenance Department performed confined space entries to inspect the heat exchangers on the No. 2 & 3 Effluent Pumps. The heat exchangers were found to be in good condition. Staff would like to thank the OLSD Operations and Maintenance Departments for their assistance completing these preventative maintenance activities.

No. 1 & 4 Effluent Pump Discharge Valve Actuator Replacement Project

During the period that the wet wells were pumped down for preventative maintenance activities described above, Calcon completed the installation of the No. 1 & 4 Effluent Pump discharge valve gear drives and actuators. MRC Global provided a technician to assist with commissioning the new actuators. Staff worked with Calcon and MRC to test the new actuators, and they are now in service.



Old Gear Drive & Actuator

New Gear Drive & Actuator

Electrical Improvements
On September 20, 2019, EBDA received a Memorandum from Beecher Engineering, Inc. (Beecher), EBDA's contract Electrical Engineer, indicating that OLSD can provide the required standby power to OLEPS. The OLSD standby power would only be used in the event of a PG&E power failure and a failure of the OLEPS emergency generator. After discussions with OLSD and the MAC, EBDA received a quote to install the two electrical conduits, a one-inch #1 water line, and a two-inch #4 water line under the asphalt from OLEPS to OLSD.

One of the electrical conduits is for the OLEPS standby power and the other is to replace the Skywest main electrical feed. The Skywest main electrical feed was hit by the contractor working on OLSD's Nutrient Optimization Project and was found to be in need of replacement. If EBDA is going to continue to operate the Skywest system for years to come, the main power feed will need to be replaced. Bringing a conduit under the asphalt from OLEPS to the OLSD wall at this time is cost-effective for Skywest and will reduce the cost of the backup power conduit for EBDA.

The #1 water line supplies water to the OLEPS safety shower and eyewash station and was broken several times by the OLSD contractor. The #4 water line will be used in the event the OLEPS water system fails. The current contingency plan if the OLEPS water system fails is for OLSD staff to drag hoses from OLEPS to OLSD for the pump gear drive cooling water. The new #4 water line will eliminate that need. The #4 water will also be used to hose the OLEPS wet wells when they are taken down for maintenance activities.

San Leandro Effluent Pump Station (SLEPS)

Emergency Generator Starter Failure
On September 16, 2019, at 0225 hours, during a short power outage, the SLEPS emergency generator failed to start. This failure appeared to be similar to a failure that occurred in July of this year when the starter was replaced. Peterson Power inspected the generator on September 17 and determined that the new starter was defective. Peterson Power replaced the starter slave relay, reinstalled the old starter, and the generator is now fully functional. EBDA is working with Peterson Power to address the repair under warranty and receive a credit on the starter.

Skywest Pump Station

Recycled Water Production
During the month of September 2019, the Skywest Recycled Water System produced 8.3 million gallons of recycled water.

Marina Dechlorination Facility (MDF)

No change; all equipment is operational.

Force Main

No change; all equipment is operational.

Operations Center

Cyber Security

On September 20, 2019, EBDA received the updated IT/SCADA System Cybersecurity Vulnerability Assessment Report. The first Quarterly Network Security Management & Coordination meeting is scheduled for October 9, 2019. The meeting will be attended by EBDA, OLSD, Woodard & Curran, Calcon (EBDA's SCADA consultant) and Cayuga Information Systems (EBDA's business IT consultant). The meeting objectives are to establish communication channels, develop a common understanding of upcoming projects and potential interactions, and outline the future network architecture. The agenda for the first meeting includes discussion of network security and remote access issues for EBDA's new SCADA system and EBDA's communication system upgrade.

SCADA System Upgrade Project

EBDA staff is now using the new SCADA system and the project is scheduled to be completed in the next month.

Miscellaneous Items

Underground Service Alerts

EBDA received twenty-five (25) Underground Service Alert (USA) tickets during the month of September 2019. Three required field verification.

Special Projects

PG&E Large Integrated Audit Program

On September 27, 2019, EBDA participated in a conference call to discuss PG&E's Large Integrated Audit (LIA) program. The LIA Program is a PG&E-sponsored assessment of customer facilities, as a service of the Public Purchase Program surcharge paid for by PG&E customers. The goal of the effort is to provide customers with an energy action plan, which identifies and prioritizes potential energy and demand savings from energy conservation, energy efficiency, time-of-use management, demand response, and self-generation measures. EBDA's study will be conducted by Alternative Energy Systems Consulting, Inc. The basic process is as follows:

- Site visit/walk – scheduled for October 10, 2019
- Initial measures list
- Workshop with key staff to discuss benefits/potential pitfalls of measures. End the day with a list of measures the team would like to move forward with more detailed calculations/assessments.
- Energy & process monitoring for ~1 month to determine baseline system profile
- Detailed analysis of each measure
    - Process impact
    - Energy savings potential
    - Maintenance impact
    - Cost analysis
        - Implementation cost
        - Chemical/maintenance savings
        - Utility incentive
        - Financial metrics (payback, ROI, etc)
- Secure incentives for all measures from PG&E

Transport System Seismic Reliability Plan
On September 3, 2019, Brown & Caldwell (BC) submitted a preliminary draft of the Transport System Seismic Reliability Plan. The draft permitting section had previously been forwarded to Kermani Consulting Group to be incorporated in EBDA's Disaster Cost Recovery Plan. Staff is reviewing the full Draft Transport System Seismic Reliability Plan and providing feedback to BC.

EBDA Facilities Electrical Evaluation
On August 23, 2019, EBDA staff met with Todd Beecher from Beecher Engineering, Inc. to provide comments to be incorporated in the draft report. A final draft will be delivered following completion of the OLEPS standby power assessment discussed above.

Disaster Cost Recovery Planning Services
EBDA staff is continuing to work with Kermani Consulting Group (KCG) on disaster cost recovery planning. KCG delivered an updated draft of EBDA's Disaster Cost Recovery Plan for review on August 14, 2019, which incorporates staff's feedback on the initial July draft. Staff is in the process of reviewing the latest draft. Following refinement of the Plan, the project will conclude with an overview session for member agency staff, likely in early 2020, per the MAC's request.

Advanced Quantitative Precipitation Information (AQPI) Project
As discussed previously, AQPI is a Bay Area regional project funded by the California Department of Water Resources (DWR) aimed at improving prediction of precipitation, streamflow, and storm surge through data gathering and model improvement. EBDA is part of a consortium of East Bay agencies working to install a permanent radar, in time for the 2019/20 wet season. The plan is for each of the participating agencies to approve a Memorandum of Understanding (MOU) with Sonoma Water as the contracting agency. The MOU would commit to funding the installation through the end of the grant in December 2021. EBDA staff is still waiting for all agencies to complete legal review on the MOU document, and then will bring the MOU to the Commission for consideration. Based on the most recent negotiation, the EBDA contribution to this two-year project is $29,000, which is included in EBDA's FY2019/20 budget. The current target is for the East Bay radar to be installed by January 2020.

It is expected that a broader regional MOU or JPA will be developed for post-grant funding beyond 2021. EBDA staff is representing the East Bay agencies in a regional committee that is beginning to discuss the long-term funding and governance plan. The group is working on a Planning Agreement that staff would sign by November 2019, documenting intent to work together toward a long-term agreement. The Planning Agreement would contain no funding commitments.

EAST BAY DISCHARGERS AUTHORITY
MONTHLY OPERATION AND MAINTENANCE REPORT

Sep-2019

1. Summary sheets from the NPDES Report submitted to the RWQCB and EPA are attached for the month of: Aug-19
2. Number of violations reported in the above NPDES Report: **None to Report**
3. The violations included the following: **None Noted**
4. Preventive Maintenance for the month of: Aug-19

LOCATION	NO. TASKS SCHEDULED	NO. TASKS COMPLETED	# TASKS UNFINISHED	PERCENT COMPLETED
San Leandro Pump Station	12	12	0	100%
Oro Loma Pump Station	54	54	0	100%
Sky West Pump Station	14	14	0	100%
Hayward Pump Station	24	24	0	100%
Alvarado Pump Station	30	30	0	100%
Marina Dechlorination Facility	99	99	0	100%
EBDA Responsibility	26	26	0	100%
Force Main - USD	4	4	0	100%
Force Main - San Leandro	68	68	0	100%
Total	331	331	0	100%

5. Unscheduled Maintenance for the month of: Sep-19

LOCATION	NO. OF WORK ORDERS
San Leandro Pump Station	1
Oro Loma Pump Station	1
Hayward Pump Station	1
Alvarado Pump Station	1
Marina Dechlorination Facility	0
Skywest Pump Station	0
Force Main	0

6. Other Items of significance: Sep-19

a. FM: Transport System Seismic Reliability Plan
b. AEPS: Pump Cavitation Study & Station Optimization
c. OLEPS: Effluent Pumps No. 1 & 4 Discharge Valve Actuators & Gear Drives
d. MDF: No Items
e. HEPS: MCC Replacement Project
f. SLEPS: Emergency Generator Repair

EAST BAY DISCHARGERS AUTHORITY
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A Joint Powers Public Agency

ITEM NO. 17

PERSONNEL COMMITTEE AGENDA

Tuesday, October 15, 2019
2:30 p.m.

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

Committee Members: Handley (Chair), Mendall

P1. Call to Order

P2. Roll Call

P3. Public Forum

P4. Committee Schedule Review
(The Committee will review the calendar of activities for each Committee.)

P5. Authority Staffing Update and Request
(The Committee will receive an update on staffing and provide direction to staff.)

P6. 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 Personnel Committee meeting is scheduled on Tuesday, December 17, 2019, at 2:30 p.m.

Agenda Explanation
East Bay Dischargers Authority
Personnel Committee
October 15, 2019

ITEM NO. P4 COMMITTEE SCHEDULE REVIEW

Recommendation
Provide input to the Commission and staff on current Committee meeting frequency and any recommended changes.

Background
EBDA currently has three standing committees that meet monthly – Operations and Maintenance (O&M), Financial Management, and Regulatory Affairs – and one Committee – Personnel – that meets every other month or as needed. EBDA also convened an Ad Hoc Committee to discuss items related to drafting of the Joint Powers Agreement (JPA) renewal. The Personnel Committee asked to review the activities of these Committees to consider whether the frequency of meetings may be adjusted.

Discussion
Attached is a general calendar outlining the typical annual schedule of activities and approvals for each Committee, along with the Commission. The Financial Management Committee reviews monthly disbursements and treasurers reports, along with periodic additional financial information, and therefore continuing monthly meetings may be warranted. Similarly, monthly status updates on O&M and capital projects are generally expected and appreciated by the Commission. Regulatory activity tends to move fairly slowly, so decreasing the frequency of Regulatory Affairs meetings could be feasible, with time-sensitive regulatory issues highlighted in the GM report at Commission meetings when the Regulatory Affairs Committee has not convened.

The Ad Hoc Committee could sunset when the JPA is adopted. However, the Commission may want to consider extending the Ad Hoc Committee or creating a new one to advise on renewal of the LAVWMA Agreement, for which a short-term extension will be considered at this month's Commission meeting.

AGENDA CALENDAR

	COMMISSION	O&M	FINANCIAL MANAGEMENT	REGULATORY AFFAIRS	PERSONNEL
JULY	Minutes	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report Biennial Actuarial Valuation (Odd Years)	Permit Compliance Current issues Quarterly Regulatory Reporting Checklist	Salary & Benefits Issues (Misc) Conflict of Interest Code Update (even years) Staff Accomplishments & Goals
AUGUST	Minutes	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report Correspondence from Auditor	Permit Compliance Current issues	
SEPTEMBER	Minutes	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Preliminary Treasurer's Report Annual CERBT Fund Statement	Permit Compliance Current issues	Salary & Benefits Issues (Misc) GM Travel Review
OCTOBER	Minutes	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report Final 4th Quarter Expense Summary Final Adjusted Treasurer's Report Final O&M Cost & Revenue Allocations to Member Agencies	Permit Compliance Current issues Quarterly Regulatory Reporting Checklist	
NOVEMBER	Minutes	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report 1st Quarter Expense Summary Accept Annual Audit (Motion)	Permit Compliance Current issues	Salary & Benefits Issues (Misc) Commissioner Compensation
DECEMBER	Minutes	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report Status of PERS Retirement Accounts	Permit Compliance Current issues	
JANUARY	Minutes Resos: Mid-year Budget Modifications	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report Insurance Policy Updates Budget Schedule Mid-Year Budget Modifications State Controller's Office Annual Reports (FTR & GCC)	Permit Compliance Current issues Quarterly Regulatory Reporting Checklist	Salary & Benefits Budget Planning CalPERS Annual Status GM Performance Review (CLOSED SESSION)
FEBRUARY	Minutes	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report 2nd Quarter Expense Summary Budget Trends	Permit Compliance Current issues NPDES Annual Report	
MARCH	Minutes Resos: Personnel Policy Review	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report Preliminary Budget Considerations CSRMA Pooled Liability Program Dividend	Permit Compliance Current issues	Salary & Benefits Assumptions Resolution Approving Annual Personnel Policy Review GM Travel Review
APRIL	Minutes	Permit Compliance Status of O&M Projects Accept Bids	List of Disbursements Treasurer's Report Preliminary Budget Considerations Member Agency Budget Allocations	Permit Compliance Current issues Quarterly Regulatory Reporting Checklist	
MAY	Minutes Resos: FY Budget Adoption R&R Fund Schedule Finance Policy Review CERBT Contribution Compensation Plan Appreciation of Outgoing Commissioners MOTION: Chair Rotation	Permit Compliance Status of O&M Projects Accept Bids Reso Approving R&R Fund Schedule	List of Disbursements Treasurer's Report 3rd Quarter Expense Summary Reso Adopting Budget Reso Approving Finance Policy Review Reso Approving Annual CERBT Contribution Reso Adopting Compensation Plan (Personnel)	Permit Compliance Current issues	Salary & Benefits Issues (Misc) Brown Act Review Resolution Adopting Compensation Plan Chair Rotation Resos of Appreciation for Outgoing Board members Reso Approving Amendments to GM's Employment Agreement Committee Assignments & Meeting Schedule Preferences
JUNE	Minutes Committee Assignments & Schedule Resos: Accept Bisulfite Bid Recycled Water Rate Amend Meyers Nave Fee	Permit Compliance Status of O&M Projects Accept Bids Reso Accepting Bisulfite Bid	List of Disbursements Treasurer's Report Reso Fixing the Price of Recycled Water Reso to Amend the Meyers Nave Fee Contract	Permit Compliance Current issues	

ITEM NO. P5 AUTHORITY STAFFING UPDATE AND REQUEST

Recommendation
Provide direction to staff to on extending the Temporary Administrative Assistant's services for an additional six months.

Background
As discussed at previous Personnel Committee Meetings, the Authority's Administrative Assistant, Juanita Villasenor, is on medical leave. To cover her duties, the General Manager retained the services of a Temporary Administrative Assistant, Kalena Yambao. To simplify reporting and payroll and streamline the hiring process, Kalena was retained through Aerotek, a temporary staffing agency. Kalena started on June 4, 2019, under an existing agreement with Aerotek that has been in effect since 2017. On July 18, 2019, the Commission approved a Purchase Order with Aerotek for $17,600 to cover Kalena's services through August 23, 2019. On August 15, 2019, the Commission approved an amendment to the Purchase Order of $30,000 to retain Kalena through November. Kalena's services have been critical to ensuring the Authority's continued functioning and regulatory compliance.

Discussion
Juanita continues to undergo treatment, and her return date is not yet known. Juanita has been working some hours, particularly in support of the Authority's fiscal year end close and preparation for the annual audit. The Authority has been paying Juanita hourly for that work, which has typically been less than one-third time.

Maria Buckley, a retired annuitant, has also been assisting the Authority with administrative and financial tasks, policies, and backlog work as a part-time temporary employee. Maria's half-time employment through December was included in the FY 19-20 budget. Her employment will conclude at the end of the calendar year, making continuity of support in the full-time Administrative Assistant role that much more critical.

In order to ensure continued coverage, staff is requesting that Kalena's services be extended for an additional six months, through May 2020. When Kalena's employment exceeds 1000 hours for the fiscal year, which is expected to occur in December, the Authority will be required to begin reporting her time to CalPERS, including paying the employer share of her CalPERS pension and requiring her to pay the employee share.

Staff is requesting Committee input on the method of temporary employment for Kalena. Kalena's pay rate is $35 per hour, for which Aerotek is charging the Authority $55 per hour. Continuing to contract with Aerotek for an additional six months will cost approximately $57,000. Though this was not explicitly budgeted for, the cost is largely offset by Juanita's reduced work schedule. Alternatively, the Authority could hire Kalena directly as a temporary employee. This approach would reduce direct costs by eliminating Aerotek's overhead. However, it would require some additional

administration. The Authority may also request some human resources support and advice from a Member Agency.

Staff also considered but does not recommend the following alternatives:

- Conduct a recruitment process to hire a Temporary Administrative Assistant. This approach is not recommended because it would require a new employee significant time to get up to speed on the role, and would also involve Authority and Member Agency staff time to conduct the recruitment.

- Request that Aerotek provide a new Temporary Administrative Assistant. This approach is not recommended because, as with above, a new employee would have a steep learning curve.

If extension of Kalena's services via Aerotek is the preferred approach, staff will bring a resolution increasing the Aerotek purchase order to the Commission in November. If retaining Kalena directly is the preferred approach, staff will proceed with the hiring process upon the Committee's direction.

Over the next six months, and as Juanita's return date becomes clearer, the General Manager will be performing a staffing analysis to bring the Committee further recommendations on permanent staffing. The Authority's long-time contract accountant has announced her retirement at the end of the fiscal year. The GM proposes to look at the accountant's duties, the duties Maria has been performing, the duties of the Administrative Assistant, and the backlog of work that has continued to accumulate, and provide recommendations to the Committee for staffing. The goal will be to develop a staffing plan that will feed into next fiscal year's budgeting process.

ITEM NO. 18 ITEMS FROM THE COMMISSION AND STAFF

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

ITEM NO. 19 ADJOURNMENT