

A Joint Powers Public Agency

COMMISSION MEETING AGENDA

Thursday, April 17, 2025

4:00 PM

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

Teleconference link: <u>https://us02web.zoom.us/j/89796898677</u> Call-in: 1(669) 900-6833 and enter Webinar ID number: 897 9689 8677

- 1. Call to Order
- 2. Pledge of Allegiance
- 3. Roll Call
- 4. Public Forum

NOTICE OF PUBLIC HEARING

Page

5

- HEARING
 5.
 Public Hearing to Discuss the Status of Vacancies, Recruitments, and Retention Efforts of the East Bay Dischargers Authority Pursuant to Assembly Bill 2561 (The Commission will hold a public hearing, receive comments, and accept report on Authority vacancies.)
 - 6. Close Public Hearing

CONSENT CALENDAR

MOTION	7.	Commission Meeting Minutes of March 20, 2025	9	
	8.	List of Disbursements for March 2025 – See Item No. FM4	16	
	9.	Treasurer's Report for March 2025 – See Item No. FM5	19	
		REGULAR CALENDAR		
INFORMATION	10.	General Manager's Report (The General Manager will report on EBDA issues.)	11	
ÍNFORMATION	11.	Report from the Managers Advisory Committee (The General Manager will report on EBDA issues.)	11	
INFORMATION	12.	Report from the Financial Management Committee (The General Manager will report on EBDA issues.)	13	

INFORMATION	13.	Report from the Operations and Maintenance Committee (The General Manager will report on EBDA issues.)	31
INFORMATION	14.	Report from the Regulatory Affairs Committee (The General Manager will report on EBDA issues.)	69
INFORMATION	15.	Committee Preference Form for Fiscal Year 2025/2026 (The General Manager will report on EBDA issues.)	173
INFORMATION	16.	Items from the Commission and Staff (The General Manager will report on EBDA issues.)	174

17. 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 Administration Manager at the EBDA office at (510) 278-5910 or juanita@ebda.org. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.

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

Next Scheduled Commission meeting is Thursday, May 15, 2025 at 4:00 pm

GLOSSARY OF ACRONYMS

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

GLOSSARY OF ACRONYMS

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

ITEM NO. <u>5</u> PUBLIC HEARING TO DISCUSS THE STATUS OF VACANCIES, RECRUITMENTS, AND RETENTION EFFORTS OF THE EAST BAY DISCHARGERS AUTHORITY PURSUANT TO ASSEMBLY BILL 2561

Recommendation

For Commission information only, no action is required.

Background

Assembly Bill 2561 (AB 2561) imposes new obligations on public agencies related to tracking and presenting information on job vacancies. This report discusses the Authority's legal obligations under the new law, which took effect January 1, 2025.

AB 2561 was introduced to address the issue of job vacancies in local government, which adversely affects the delivery of public services and employee workload. Among other requirements, the bill mandates that public agencies present the status of vacancies and recruitment and retention efforts during a public hearing before the agency's governing body at least once per fiscal year. The bill was enacted into law and is codified in Government Code section 3502.3.

In compliance with the new legal obligations, public agencies are required to do the following:

- 1. <u>Public Hearing</u>: At least once each fiscal year, at a public hearing before the Commission, the Authority shall present information regarding the status of vacancies and recruitment and retention efforts (Gov. Code § 3502.3(a)(1)) and identify any necessary changes to policies, procedures, and recruitment activities that may lead to obstacles in the hiring process (Gov. Code § 3502.3(a)(3)).
- Employee Organization Participation: Allow the recognized employee organization for each bargaining unit to make presentations during the public hearing concerning vacancies and recruitment and retention efforts. (Gov. Code § 3502.3(b)).
- 3. <u>Additional Reporting for High Vacancy Rates</u>: If vacancies within a single bargaining unit meet or exceed 20% of authorized full-time positions in that bargaining unit, upon request of the recognized employee organization for that bargaining unit, the agency must provide additional information during the public hearing, including the following: (1) the total number of vacancies; (2) the number of applicants; (3) the average time to fill positions; and (4) opportunities to improve compensation and working conditions for employees in the bargaining unit. (Gov. Code § 3502.3(c)).

Discussion

Each year, beginning with this report, the Authority will schedule and hold a hearing prior to budget adoption to comply with AB 2561.

The data that the Authority will report on to meet the compliance requirements of AB 2561 each year will be based on the previous calendar year, with a snapshot of the activity on December 31 of each year. The data that AB 2561 requires to be reported is on recruitment, vacancy, and retention efforts or activity. All Authority positions are unrepresented, and therefore EBDA will not need to meet the additional communication or data collection required for organizations with recognized bargaining units.

The data for calendar year 2024 activity as of December 31, 2024, is:

- Budgeted full-time equivalent (FTE) Positions 3
- Vacancy rate 0%
- Retention rate 100%
- Recruitments 0

As the data indicates, the Authority has experienced very low turnover. The three full-time positions have been filled since 2018, with an average tenure of 8.5 years for current employees.

Staff reviewed the Authority's current policies, procedures, and recruitment activities and did not identify any potential obstacles. The Authority also regularly reviews salary and benefit information.

In addition, the Authority has one vacant half-time position. Staff is in the process of drafting an updated job description for this position. The Personnel Committee will review the updated draft job description in the coming months, and recruitment efforts for this position will begin thereafter.

AB 2561 Data

East Bay Dischargers Authority Vacancy, Recruitment, and Retention Data as of December 31, 2024



3

Budgeted Full Time Positions



0

Open Positions









0%

Vacancy Rate



100%

Retention Rate



NA Average Time to Hire

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. 7 Commission Meeting Minutes of March 20, 2025
- Item No. 8 List of Disbursements for March 2025 See Item No. FM4
- Item No. 9 Treasurer's Report for March 2025 See Item No. FM5

Recommendation

Approve Consent Calendar

ITEM NO. 7 COMMISSION MEETING MINUTES OF MARCH 20, 2025

1. Call to Order

Chair Young called the meeting to order at 4:00 pm on Thursday, March 20, 2025, at the Oro Loma Sanitary District, 2655 Grant Avenue, San Lorenzo, CA 94580.

2. Pledge of Allegiance

3. Roll Call

Present:	Jennifer Toy	Union Sanitary District
	Angela Andrews	City of Hayward
	Bryan Azevedo	City of San Leandro
	Ralph Johnson	Castro Valley Sanitary District
	Shelia Young	Oro Loma Sanitary District

Absent: None

Attendees:	Jacqueline Zipkin	East Bay Dischargers Authority
	Howard Cin	East Bay Dischargers Authority
	Juanita Villasenor	East Bay Dischargers Authority
	Eric Casher	Legal Counsel
	David Donovan	City of Hayward
	Hayes Morehouse	City of San Leandro
	Jimmy Dang	Oro Loma Sanitary District
	Paul Eldredge	Union Sanitary District

4. Public Forum

No members of the public were present.

CONSENT CALENDAR

- 5. Commission Meeting Minutes of February 20, 2025
- 6. List of Disbursements for February 2025

7. Treasurer's Report for February 2025

Commissioner Andrews moved to approve the Consent Calendar. The motion was seconded by Commissioner Toy and carried unanimously.

REGULAR CALENDAR

8. General Manager's Report

The General Manager (GM) provided an update on Nutrients Watershed Permit compliance and discussed the Supreme Court ruling on San Francisco Public Utilities Commission (SFPUC) v. the U.S. Environmental Protection Agency (EPA). The GM noted that the June 19 Commission meeting coincides with the Juneteenth holiday. Staff will send out a Doodle poll to find an alternate date.

9. Report from the Managers Advisory Committee (MAC)

The GM reviewed the activities of the MAC, including a discussion on nutrient compliance milestone reporting, which is due April 1.

10. Report from the Financial Management Committee

The GM reported on the March 19, 2025, meeting of the Financial Management Committee. The Committee recommended approval of the February list of disbursements, the Treasurer's Report, and the engagement of Duane Morris, LLP. The GM reviewed the Second Quarter Expense Summary and preliminary FY 2025/2026 budget considerations. The GM discussed the status of the Authority's pension fund and other post-employment benefits trust and advised that the Committee directed staff to bring the items back for further review at the end of the fiscal year.

11. Motion Authorizing the General Manager to Approve an Engagement of Legal Services with Duane Morris LLP for Specialized Legal Services

Commissioner Azevedo moved to approve the item. The motion was seconded by Commissioner Johnson and carried unanimously.

12. Report from the Operations and Maintenance Committee

The Operations and Maintenance (O&M) Manager and GM reported on the March 17, 2025, meeting and O&M activities. The O&M Manager provided updates on ongoing projects, including the Hayward Effluent Pump Station (HEPS) Effluent Pump Replacement Project and the Oro Loma Effluent Pump Station (OLEPS) control upgrades. The O&M Manager briefly discussed February wet weather events and thanked the member agencies for their collaboration. The GM provided updates on the Cargill and AQPI projects.

13. Report from the Personnel Committee

The GM reported on the meeting of the Personnel Committee held on March 19, 2025. The Committee discussed a proposed approach to AB 2561, budget assumptions for FY 2025/2026, and the draft Compensation Plan. Lastly, the Committee reviewed the GM Travel Report and discussed Commissioners' attendance at conferences on behalf of EBDA.

14. Items from Commission and Staff

Commissioner Azevedo requested to adjourn the meeting in memory of Shirley Demerse, Pam Morrow, and Aaliyah Jordan.

15. Adjournment

Chair Young adjourned the meeting in memory of Shirley Demerse, Pam Morrow, and Aaliyah Jordan.

Jacqueline Zipkin General Manager

ITEM NO. 10 GENERAL MANAGER'S REPORT

The General Manager will discuss items of interest to EBDA.

ITEM NO. 11 REPORT FROM THE MANAGERS ADVISORY COMMITTEE

MANAGERS ADVISORY COMMITTEE AGENDA

Tuesday, April 15 2:30 pm

Via Zoom

- 1. Agency Cross-training for Staff
- 2. Back-up USA Marking
- 3. Biosolids HT Harvey Kickoff Debrief and Next Steps
- 4. Nutrients Updates
- 5. EBDA Commission Agenda
- 6. Managers Information Sharing

THIS PAGE INTENTIONALLY LEFT BLANK



A Joint Powers Public Agency

ITEM NO. 12

FINANCIAL MANAGEMENT COMMITTEE AGENDA

Monday, April 14, 2025

11:00 AM

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

Committee Members: Andrews (Chair); Toy

- FM1. Call to Order
- FM2. Roll Call
- FM3. Public Forum
- **FM4.** Disbursements for March 2025 (The Committee will review the List of Disbursements.)
- FM5.Treasurer's Reports for March 2025
(The Committee will review the Treasurer's Report.)
- FM6. Draft Fiscal Year 2025/2026 Budget Review (The Committee will discuss the draft FY 2025/2026 Budget.)
- **FM7.** Cargill Project Approval Agreement and CEQA Documentation Updates (The Committee will review the key terms of the agreement and CEQA strategy.)

FM8. Adjournment

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

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 Juanita Villasenor at <u>juanita@ebda.org</u> or (510) 278-5910. 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.

Agenda Explanation East Bay Dischargers Authority Financial Management Committee April 14, 2025

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 also posted on the East Bay Dischargers Authority website located at <u>http://www.ebda.org</u>.

Next Scheduled Financial Management Committee is Monday, May 12, 2025

Agenda Explanation East Bay Dischargers Authority Financial Management Committee April 14, 2025

ITEM NO. FM4 DISBURSEMENTS FOR MARCH 2025

Disbursements for the month of March totaled \$553,675.80.

Reviewed and Approved by:

Angela Andrews, ChairDateFinancial Management Committee

Jacqueline T. Zipkin Treasurer

Date

EAST BAY DISCHARGERS AUTHORITY List of Disbursements March 2025

Check #	Payment Date	Invoice #	Vendor Name	Description	Invoice Amount	Disbursement Amount
10006	03/14/2025	3440	CITY OF HAYWARD	FY 2023/2024 FINAL INVOICE	137,241.64	208,868.41
10006	03/14/2025	352753	CITY OF HAYWARD	HEPS O&M OCT-DEC	71,626.77	
10029	03/31/2025	3166	UNION SANITARY DISTRICT	UEPS O&M, PG&E, FM MAINTENANCE - FEB	50,008.45	50,008.45
10012	03/14/2025	3165	UNION SANITARY DISTRICT	UEPS O&M, PG&E, FM MAINTENANCE - JAN	49,293.74	49,293.74
10018	03/31/2025	399975	CITY OF SAN LEANDRO	MDF O&M, EFFLUENT MONITORING, FM MAINTENANCE - JAN	28,092.78	28,092.78
10025	03/31/2025	7088	ORO LOMA SANITARY DISTRICT	OLEPS O&M, ADMIN BUILDING, SKYWEST - JAN	24,069.02	24,069.02
10002	03/14/2025	20210105.02-21	ASCENT ENVIRONMENTAL, INC	CONSULTING SERVICES - CARGILL CEQA	13,525.00	13,525.00
10027	03/31/2025	18195	REGIONAL GOVERNMENT SERVICES	MANAGEMENT AND ADMINISTRATIVE SERVICES	8,352.57	8,352.57
10009	03/14/2025	431.1	DCM CONSULTING, INC	GEOTECHNICAL ENGINEERING SERVICES	4,700.00	7,755.00
10009	03/14/2025	434.1	DCM CONSULTING, INC	GEOTECHNICAL ENGINEERING SERVICES	3,055.00	
10011	03/14/2025	4246-0445-5568-7627	U.S. BANK	PURCHASING CARD EXPENSES	7,615.40	7,615.40
10028	03/31/2025	2025250101306	THATCHER COMPANY OF CA, INC	SODIUM BISULFITE - DELIVERED 3/10/2025	7,257.94	7,257.94
10026	03/31/2025	20454	PACIFIC ECORISK	NPDES TOXICITY TESTING	6,184.00	6,184.00
10020	03/31/2025	435.1	DCM CONSULTING, INC	GEOTECHNICAL ENGINEERING SERVICES	3,290.00	3,290.00
10008	03/14/2025	57870	COMPUTER COURAGE	GENERAL WEBSITE UPDATES	2,320.00	2,470.00
10008	03/14/2025	57890	COMPUTER COURAGE	WEBSITE HOSTING	150.00	
10004	03/14/2025	T184533	BAY AREA AIR QUALITY MGMT DISTRICT	OLEPS PERMIT TO OPERATE	2,226.00	2,226.00
10016	03/31/2025	728096	CALTEST	LAB TESTING SERVICES	1,835.38	1,835.38
10015	03/31/2025	58630	CALCON	OPS CENTER NETWORK SECURITY & SCADA COMMUNICATIONS	1,684.00	1,684.00
10019	03/31/2025	783135	CORRPRO COMPANIES, INC	FORCE MAIN BI-ANNUAL CATHODIC PROTECTION SYSTEM SURVEY	1,395.00	1,395.00
10007	03/14/2025	52205709	CITY OF HAYWARD	EMPLOYEE BENEFIT PROGRAMS - MAR	1,377.18	1,377.18
10001	03/14/2025	3015879	ALLIANT INSURANCE	PUBLIC OFFICIAL BOND - ZIPKIN	875.00	875.00
10003	03/14/2025	43676	BA MORRISON	HEPS HVAC SERVICE	445.00	735.00
10003	03/14/2025	43677	BAMORRISON	ADMIN HVAC SERVICE	290.00	
10005	03/14/2025	8453	CAYUGA INFORMATION SYSTEMS	IT SERVICES	341.25	603.75
10005	03/14/2025	8452	CAYUGA INFORMATION SYSTEMS	IT SERVICES	262.50	
10014	03/31/2025	10012592	ARROW FIRE PROTECTION CO	ANNUAL FIRE EXTINGUISHER INSPECTION & SERVICE	387.40	387.40
10024	03/31/2025	275770358	ORKIN	MDF PEST CONTROL SERVICE	275.00	275.00
10010	03/14/2025	10110000001	EBMUD	MDF WATER & SEWER SERVICE	262.26	262.26
10023	03/31/2025	12075	MBC CUSTODIAL SERVICES INC	JANITORIAL SERVICES - MAR	208.00	208.00
10022	03/31/2025	Mar-25	JACQUELINE ZIPKIN	REIMBURSABLE EXPENSES	144.20	144.20
10017	03/31/2025	4324432-CAL	CALTRONICS	COPIER USAGE AND MAINTENANCE	121.85	121.85
10030	03/31/2025	S2240116.001	WILLE ELECTRIC SUPPLY CO, INC	MDF LED EMERGENCY LIGHT	111.26	111.26
10013	03/31/2025	0201	ALAMEDA COUNTY EMA	MEMBERSHIP DUES FY 2024/2025	100.00	100.00

EAST BAY DISCHARGERS AUTHORITY List of Disbursements March 2025

						Dichurcomont
Check #	Payment Date	Invoice #	Vendor Name	Description	Invoice Amount	Amount
10021	03/31/2025	44777800001	EBMUD	ADMIN WATER SERVICE	78.58	78.58
					429,202.17	429,202.17
				ELECTRONIC PAYMENTS		
	03/06/2025	5105948980-0	PG&E	GAS & ELECTRIC SERVICE	46,046.79	46,046.79
	03/06/2025	100000017834928	CALPERS	HEALTH PREMIUMS - MAR	8,319.94	8,319.94
	03/04/2025	100000017797529	CALPERS	PENSION CONTRIBUTION, CLASSIC 2/16 - 28/2025	5,877.93	5,877.93
	03/18/2025	100000017829734	CALPERS	PENSION CONTRIBUTION, CLASSIC 3/01 - 15/2025	5,877.93	5,877.93
	03/05/2025	6286287	MISSION SQUARE	DEFERRED COMPENSATION CONTRIBUTION 2/28/2025	2,281.89	2,281.89
	03/18/2025	6920332	MISSION SQUARE	DEFERRED COMPENSATION CONTRIBUTION 3/15/2025	2,281.89	2,281.89
	03/21/2025	1002368910	STATE COMPENSATION INSURANCE FUND	WORKERS COMPENSATION PREMIUM - MAR	893.00	893.00
	03/18/2025	51048304397166	AT&T	MDF TELEPHONE SERVICE	404.37	404.37
	03/05/2025	2503301175	INTERMEDIA.NET INC	EMAIL EXCHANGE HOSTING	91.36	91.36
	03/19/2025	6107396901	VERIZON WIRELESS	WIRELESS PHONE SERVICE	63.79	63.79
				TOTAL ELECTRONIC PAYMENTS	72,138.89	72,138.89
				PAYROLL		
	03/28/2025		ADP, LLC	PAYROLL PERIOD: 3/16-31/2025	27,675.04	27,675.04
	03/13/2025		ADP, LLC	PAYROLL PERIOD: 3/01-15/2025	24,463.02	24,463.02
	03/07/2025		ADP, LLC	PAYROLL FEES, 2/16-28/2025	105.74	105.74
	03/21/2025		ADP, LLC	PAYROLL FEES, 3/01-15/2025	90.94	90.94
				TOTAL PAYROLL	52,334.74	52,334.74
				TOTAL DISBURSEMENTS	553,675.80	553,675.80

Agenda Explanation East Bay Dischargers Authority Financial Management Committee April 14, 2025

ITEM NO. FM5 TREASURER'S REPORT FOR MARCH 2025

The cash balance as of March 31, 2025 is \$4,714,416.74. EBDA's LAIF balance is \$1,344,893.94, and the average monthly effective yield for March is 4.313%. EBDA's CAMP balance is \$1,628,500.96, and CAMP's 7-day yield is 4.46%.

Approval is recommended.

EAST BAY DISCHARGERS AUTHORITY

TREASURER'S REPORT

March 2025

FUND	FUND DESCRIPTION		BEGINNING CASH BALANCE		DEBITS (INCREASE)	CREDITS (DECREASE)			ENDING CASH BALANCE	
12	OPERATIONS & MAINTENANCE	\$	2,201,476	\$	-	\$	534,505	\$	1,666,971	
13	PLANNING & SPECIAL STUDIES	\$	521,506	\$	-	\$	-	\$	521,506	
14	RECLAMATION O & M (SKYWEST)	\$	60,771	\$	-	\$	2,356	\$	58,415	
15	BRINE ACCEPTANCE	\$	122,478	\$	-	\$	13,525	\$	108,953	
31	RENEWAL & REPLACEMENT	\$	2,356,244	\$	5,618	\$	3,290	\$	2,358,572	
	TOTALS	\$	5,262,475	\$	5,618	\$	553,676	\$	4,714,417	
	Ending Balance per STR							\$	4,714,417	

SUPPLEMENTAL TREASURER'S REPORT

Mar-25 4/8/2025

			DISBURSEMENT		PAYROLL		–		WELLS FARGO CHECKING	WELLS FARGO PAYROLL	FREMONT	LAIF	САМР	TOTAL
DATE	TRANSACTION	RECEIPT	CHECKING	PAYROLL	TRANSFER	FREMONT	LAIF	CAMP	BALANCE	BALANCE	BALANCE	BALANCE	BALANCE	CASH
02/28/25	BALANCE								1,227,044.51	67,553.13	1,000,100.00	1,344,893.94	1,622,883.38	5,262,474.96
03/03/25	DIVIDENDS	5,617.58						5,617.58	1,227,044.51	67,553.13	1,000,100.00	1,344,893.94	1,628,500.96	5,268,092.54
03/05/25	ELECTRONIC BILL PAY		91.36						1,226,953.15	67,553.13	1,000,100.00	1,344,893.94	1,628,500.96	5,268,001.18
03/05/25	ELECTRONIC BILL PAY		2,281.89						1,224,671.26	67,553.13	1,000,100.00	1,344,893.94	1,628,500.96	5,265,719.29
03/04/25	ELECTRONIC BILL PAY					5,877.93			1,224,671.26	67,553.13	994,222.07	1,344,893.94	1,628,500.96	5,259,841.36
03/06/25	ELECTRONIC BILL PAY					8,319.94			1,224,671.26	67,553.13	985,902.13	1,344,893.94	1,628,500.96	5,251,521.42
03/06/25	ELECTRONIC BILL PAY					46,046.79			1,224,671.26	67,553.13	939,855.34	1,344,893.94	1,628,500.96	5,205,474.63
03/07/25	PAYROLL FEES			105.74					1,224,671.26	67,447.39	939,855.34	1,344,893.94	1,628,500.96	5,205,368.89
03/13/25	PAYROLL			24,463.02					1,224,671.26	42,984.37	939,855.34	1,344,893.94	1,628,500.96	5,180,905.87
03/14/25	DISBURSEMENT					295,606.74			1,224,671.26	42,984.37	644,248.60	1,344,893.94	1,628,500.96	4,885,299.13
03/18/25	ELECTRONIC BILL PAY					404.37			1,224,671.26	42,984.37	643,844.23	1,344,893.94	1,628,500.96	4,884,894.76
03/18/25	ELECTRONIC BILL PAY					2,281.89			1,224,671.26	42,984.37	641,562.34	1,344,893.94	1,628,500.96	4,882,612.87
03/18/25	ELECTRONIC BILL PAY					5,877.93			1,224,671.26	42,984.37	635,684.41	1,344,893.94	1,628,500.96	4,876,734.94
03/19/25	ELECTRONIC BILL PAY					63.79			1,224,671.26	42,984.37	635,620.62	1,344,893.94	1,628,500.96	4,876,671.15
03/21/25	ELECTRONIC BILL PAY					893.00			1,224,671.26	42,984.37	634,727.62	1,344,893.94	1,628,500.96	4,875,778.15
03/21/25	PAYROLL FEES			90.94					1,224,671.26	42,893.43	634,727.62	1,344,893.94	1,628,500.96	4,875,687.21
03/28/25	PAYROLL			27,675.04					1,224,671.26	15,218.39	634,727.62	1,344,893.94	1,628,500.96	4,848,012.17
03/31/25	DISBURSEMENT					133,595.43			1,224,671.26	15,218.39	501,132.19	1,344,893.94	1,628,500.96	4,714,416.74

ΤΟΤΑΙ	L 5,617.58	2,373.25	52,334.74	-	498,967.81	-	5,617.58						
CURRENT BALANCI	E							1,224,671.26 ①	15,218.39 ②	501,132.19 ③	1,344,893.94 ④	1,628,500.96 (3	4,714,416.74
Reconciliation - 3/31/2025 (1) Bank Statement Balance Less: Outstanding Checks	\$1,224,671.26 - \$1,224,671.26												
 Payroll Bank Statement Fremont Bank Less: Outstanding Checks 	 \$ 15,218.39 \$ 844,973.21 \$ 343,841.02 \$ 501,132.19 							The mor EBD	Supplement othly by the C A's cash and	al Treasurer' General Man investments	s Report is pro ager. It also so reconciliation	epared erves as n.	
④ LAIF Statement	\$1,344,893.94												
CAMP Statement Less: Accrual Income Dividend 04/01	\$1,634,681.39 6,180.43 \$1,628,500.96												

ITEM NO. FM6 DRAFT FISCAL YEAR 2025-2026 BUDGET REVIEW

Recommendation

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

Strategic Plan Linkage

- 3. **Financial:** Develop financial strategies and practice sound fiscal management to ensure wise use of ratepayers' resources.
 - b. Proactively manage expenditures to stay within adopted budget.

Background

The Authority's Amended and Restated JPA states the following:

The Commission will adopt an annual or biennial budget for the ensuing Fiscal Year(s) prior to July 1. The budget will include sufficient detail to constitute a fiscal control guideline, specify cash flow requirements from each Agency, grant reimbursements, and cash receipts and expenditures to be made for Operation and Maintenance Costs, Planning and Special Studies Costs, and Capital Costs for the Facilities, and other necessary and appropriate expenditures.

Driving factors and considerations for the Fiscal Year (FY) 2025/2026 budget were discussed with the Financial Management Committee in March 2025.

Discussion

The Draft FY 2025/2026 Budget is presented in the following format:

- 1. By Program
- 2. By Account Number
- 3. Allocation to Member Agencies

Outside revenues and carryovers from prior budget cycles are shown in a separate column to more accurately represent the portion of the budget that the Member Agencies and LAVWMA will be responsible for. This includes revenues associated with EPA grants for Nature-Based Solutions, the Skywest water recycling project, and the Cargill brine project.

Overall, staff is proposing a 4.1% increase in the budget as compared to FY 2024/2025, or approximately \$276k. The increase is driven by the following:

- Salary and benefits costs are expected to increase by approximately 6%, including a 2.4% cost of living adjustment for salaries.
- The Authority's Pooled Liability and Property Insurance premiums are increasing by 20% and 9%, respectively.
- PG&E costs are expected to continue to increase.

Agenda Explanation East Bay Dischargers Authority Financial Management Committee April 14, 2025

• As discussed last month, use of sodium hypochlorite (hypo) for disinfection has increased over the past year as staff works to prevent fecal coliform exceedances, at the same time the cost of the chemical has been rising.

ESTIMATED ANNUAL INVOICES TO THE EBDA AGENCIES FOR FISCAL YEAR 2025/2026

							Non-Member	
		Membe	er Agency Allo	cations			Allocation	
	San Leandro	Oro Loma	CVSan	Hayward	USD	Subtotal	LAVWMA	Grand Total
Special Study Rate	13.0%	18.0%	6.0%	30.0%	33.0%	100.0%	varies*	100.0%
Variable Rate	9.2%	16.5%	7.1%	22.5%	44.7%	100.0%	varies*	100.0%
Variable Rate - MAs w/o CSL	-	18.1%	7.9%	24.8%	49.2%	100.0%	varies*	100.0%
Fixed Rate	13.7%	19.1%	10.3%	14.7%	42.1%	100.0%	varies*	100.0%
Fixed Rate - MAs w/o CSL	-	22.2%	11.9%	17.1%	48.8%	100.0%	varies*	100.0%
RRF	varies	22.2%	11.9%	17.1%	48.8%	100.0%	varies*	100.0%
Regional Monitoring Program	5.2%	10.2%	4.4%	30.8%	27.4%	78.0%	22.0%	100.0%
Nutrient Surcharge	8.5%	3.4%	1.7%	18.6%	50.4%	82.6%	17.4%	100.0%
NPDES	7.1%	12.1%	6.5%	17.2%	30.6%	73.4%	26.6%	100.0%
Alternative Monitoring and Reporting	16.7%	10.8%	5.8%	16.7%	16.7%	66.7%	33.3%	100.0%
Air Toxics Emissions Study	10%	16%	9%	23%	42%	100.0%	0%	100.0%

*Per LAVWMA Agreement, LAVWMA pays an extra 5% for sodium hypochlorite and a proportional share of force main. LAVWMA'S contribution is deducted first. The remaining portion is allocated among Member Agencies by percentages identified.

	SAI	CITY OF N LEANDRO	C	DRO LOMA SANITARY DISTRICT		CASTRO VALLEY SANITARY DISTRICT	F	CITY OF AYWARD	:	UNION SANITARY DISTRICT		MEMBER AGENCY TOTALS	VA MA	AMADOR AMADOR LLEY WATER ANAGEMENT AGENCY	I	OTHER REVENUES	NC A I	ON-MEMBER ND OTHER REVENUES TOTALS	Gſ	RAND TOTAL
0&M																				
O&M Fixed Charges w/San Leandro	\$	208,974	\$	291,104	\$	156,654	\$	223,879	\$	640,306	\$	1,520,917	\$	537,158			\$	537,158	\$	2,058,075
O&M Fixed Charges w/o San Leandro		-		25,102		13,456		19,335		55,179		113,072		10,423				10,423		123,495
O&M Variable Charges w/San Leandro		53,509		95,425		41,410		130,577		259,075		579,996		151,504				151,504		731,500
O&M Variable Charges w/o San Leandro		-		267,895		116,253		366,583		727,327		1,478,059		126,941				126,941		1,605,000
Total O&M	\$	262,483	\$	679,526	\$	327,773	\$	740,375	\$	1,681,887	\$	3,692,043	\$	826,026	\$	-	\$	826,026	\$	4,518,069
Last year	\$	247,365	\$	639,099	\$	304,233	\$	671,572	\$	1,528,471	\$	3,390,739	\$	792,100	\$	-	\$	3,390,739	\$	4,182,840
Special Projects																				
NPDES Permit		52,058		89,046		47,948		126,720		226,041	\$	541,813		196,587			\$	196,587	\$	738,400
Regional Monitoring Program		15,287		29,890		12,815		90,024		80,025		228,042		64,255				64,255		292,298
Nutrient Surcharge		23,526		9,496		4,664		51,447		139,751		228,883		48,354				48,354		277,237
Alternative Monitoring and Reporting		5,770		3,750		2,019		5,770		5,770		23,078		11,539				11,539		34,617
Water Research Foundation		2,665		4,753		2,063		6,504		12,904		28,889		-				-		28,889
EPA Grant for Nature-based Solutions		-		-		-		-		-		-		-		300,000		300,000		300,000
Biosolids Feasibility Study (prior year carryover)		-		-		-		-		-		-		-		11,000		11,000		11,000
Air Toxics Study		6,282		11,326		3,775		13,590		28,729		63,702		20,462				20,462		84,164
Special Studies Fee		130		180		60		300		330		1,000		-				-		1,000
Total Special Projects	\$	105,717	\$	148,442	\$	73,344	\$	294,355	\$	493,549	\$	1,115,408	\$	341,197	\$	311,000	\$	652,197	\$	1,767,605
Last Year	\$	111,604	\$	163,875	\$	81,212	\$	300,315	\$	501,317	\$	1,169,527	\$	357,861	\$	300,000	\$	657,861	\$	1,816,184
Total Operating Budget											\$	4,807,452					\$	1,478,223	\$	6,285,674
Last Year											\$	4,560,266					\$	-	\$	5,999,024
Programs with Other Funding																				
Skywest												-				48,000		48,000		48,000
Mixed Sea Salt Brine (Cargill)												-				100,000		100,000		100,000
Total											\$	-			\$	148,000	\$	148,000	\$	148,000
Last Year											\$	-			\$	236,000	\$	236,000	\$	236,000
Renewal and Replacement Fund																				
RRF Contribution	Ļ			166,500		89,250		128,250		366,000		750,000		-			Ļ	-	Ļ	750,000
Total RRF	<u>Ş</u>	-	Ş	166,500	Ş	89,250	Ş	128,250	Ş	366,000	Ş	750,000	Ş	-			Ş	-	Ş	750,000
Last Year	Ş	-	Ş	166,500	Ş	89,250	Ş	128,250	Ş	366,000	Ş	750,000	Ş	-			Ş	-	Ş	750,000
	+-						-		-		Ļ		<u> </u>		-		F		Ļ	
Grand Total for FY 2025/2026	Ş	368,200	Ş	994,468	Ş	490,367	Ş	1,162,980	Ş	2,541,436	Ş	5,557,452	Ş	1,167,223	Ş	459,000	Ş	1,626,223	Ş	7,183,674
Grand Total FY 2024/2025	Ş	358,969	Ş	969,474	Ş	474,695	Ş	1,100,137	Ş	2,395,788	Ş	5,310,266	Ş	1,149,961	Ş	536,000	Ş	1,685,961	Ş	6,985,024

FISCAL YEAR 2025/2026 BUDGET BY FUND

			EBDA'S			AGENCY-FOCUSED PRIOR YEAR-TO-CURRENT YEAR COMPARISON*				0-CU	IRRENT YEAR C	OMPARISON*	
			TOTAL	0	UTSIDE		AGENCY		AGENCY		DOLLAR	PERCENTAGE	
			PROPOSED	RE	VENUES		REVENUES		REVENUES	С	HANGE from	CHANGE from	
	PROGRAM DESCRIPTION	F	BUDGET V 2025/2026	AND C	ARRYOVERS		tor EV 2025/2026	,	tor EV 2024/2025		FY 24/25 to FY 25/26	FY 24/25	Explanations for Changes of 10% or more
12	O&M EFFLUENT DISPOSAL		1 2023/2020		02372020		11 2023/2020		1 2024/2023		101123/20	101125/20	
12 06	General Administration	Ś	1 649 425	Ś	-	Ś	1,649,425	Ś	1 571 346	Ś	78 079	4 7%	
12 10	Outfall & Forcemains	Ś	244 210	¢	-	Ś	244 210	¢	220.000	¢	24 210	9.9%	
12 10	Marina Dechlor Facility	\$	331 420	\$		¢	331 420	¢	310,000	¢	21,210	6.5%	
12 14	Oro Loma Pump Station	¢	678 420	ć		¢	678 420	ć	650.000	ć	22,420	4.2%	
12 10	Hayward Pump Station	\$	225,210	\$	-	\$	225,210	\$	194,000	\$	31,210	13.9%	Increase due to rising PG&E cost and addition of labor, which in the
12 20	Union Pump Station	\$	536,907	\$	-	\$	536,907	\$	465,000	\$	71,907	13.4%	Increase due to rising PG&E cost and addition of labor, which in the past was charged to the pump stations but was budgeted elsewhere.
12 21	Bay & Effluent Monitoring	\$	852,477	\$	-	\$	852,477	\$	772,494	\$	79,983	9.4%	here are 2 and 1
	TOTAL FUND # 12	Ś	4.518.069	Ś	-	Ś	4.518.069	Ś	4.182.840	Ś	335.230	7.4%	
13	SPECIAL PROJECTS												
13 36	NPDES Permit Fees	\$	718,400	\$	-	\$	718,400	\$	707,899	\$	10,501	1.5%	
13 37	NPDES Permit Issues	\$	20,000	\$	-	\$	20,000	\$	100,000	\$	(80,000)	-400.0%	Nutrients permit response - level of effort decreased following adoption
13 48	Regional Monitoring Program	Ş	292,298	Ş	-	Ş	292,298	Ş	293,778	Ş	(1,480)	-0.5%	
13 49	Nutrient Surcharge	\$	277,237	\$	-	\$	277,237	\$	270,608	\$	6,629	2.4%	
13 46	Alternative Monitoring & Reporting	\$	34,617	\$	-	\$	34,617	\$	33,609	\$	1,008	2.9%	
13 53	Water Research Foundation	\$	28,889	\$	-	\$	28,889	\$	28,494	\$	396	1.4%	
13 77	Nature-Based Solutions	\$	300,000	\$	300,000	\$	-	\$	-	\$	-	0.0%	
13 78	Biosolids Feasibility Study	\$	11,000	\$	11,000	\$	-	\$	-	\$	-	0.0%	
13 82	Bruce Wolfe Memorial Scholarship	\$	1,000	\$	-	\$	1,000	\$	1,000	\$	-	0.0%	
13 50	Air Toxics Pooled Emissions Study	\$	84,164	\$	-	\$	84,164	\$	80,797	\$	3,367	4.0%	
	TOTAL FUND # 13	\$	1,767,605	\$	311,000	\$	1,456,605	\$	1,516,184	\$	(59,580)	-4.1%	
TOTAL C	PERATING BUDGET	\$	6,285,674	\$	311,000	\$	5,974,674	\$	5,699,024	\$	275,650	4.6%	
31	RENEWAL & REPLACEMENT												
	Contribution to R&R Fund	\$	750,000	\$	-	\$	750,000	\$	750,000	\$	-	0.0%	
TOTAL A	GENCY FUNDING	\$	7,035,674	\$	311,000	\$	6,724,674	\$	6,449,024	\$	275,650	4.1%	
14	WATER RECYCLING												
14 80	Skywest	\$	48,000	\$	48,000	\$	-	\$	-	\$	-	0.0%	
	TOTAL FUND # 14	\$	48,000	\$	48,000	\$	-	\$	-	\$	-	0.0%	
15	BRINE ACCEPTANCE												
15 68	Mixed Sea Salt Brine (Cargill)	\$	100,000	\$	100,000	\$	-	\$	-	\$	-	0.0%	
	TOTAL FUND # 15	\$	100,000	\$	100,000	\$	-	\$	-	\$	-	0.0%	
						l							
TOTAL E	XPENDITURES	\$	7,183,674	\$	459,000	\$	6.724.674	Ś	6.449.024	Ś	275.650	4.10%	

* Includes all agencies (Members and LAVWMA)

FISCAL YEAR 2025/2026 BUDGET BY ACCOUNT

			EBDA'S				AGENCY-FOCU	SED	PRIOR YEAR-T	0-CU	RRENT YEAR C	OMPARISON*	
		TOTAL		AL OUTSIDE			AGENCY		AGENCY		DOLLAR	PERCENTAGE	
			PROPOSED		EVENUES	REVENUES REVENUES		CHANGE from		CHANGE from			
ACCOUNT			BUDGET		AND CARRYOVERS		for		for		FY 24/25	FY 24/25	
NUMBER	ACCOUNT TITLE	F	FY 2025/2026	FY	2025/2026		FY 2025/2026		Y 2024/2025	1	to FY 25/26	to FY 25/26	Explanations for Changes of 10% or more
4010	Salary	\$	701,730	\$	-	\$	701,730	\$	684,820	\$	16,910	2.4%	
4020	Benefits	\$	364,314	\$	-	\$	364,314	\$	315,100	\$	49,214	13.5%	Increase in medical premiums.
4030	Commissioner Compensation	\$	50,000	\$	-	\$	50,000	\$	45,000	\$	5,000	10.0%	Increasing trend in number of meetings and per meeting stipend.
4070	Insurance	\$	95,450	\$	6,500	\$	88,950	\$	83,000	\$	5,950	6.7%	
4080	Memberships & Subscriptions	\$	178,449	\$	-	\$	178,449	\$	170,528	\$	7,922	4.4%	
4100	Supplies, Fixed	\$	20,000	\$	-	\$	20,000	\$	12,000	\$	8,000	40.0%	Expected expenditure for new desks.
4100	Supplies, Variable	\$	440,000	\$	-	\$	440,000	\$	380,000	\$	60,000	13.6%	Increase in use of sodium hypochlorite for disinfection based on FY 2024/2025 usage.
4110	Contract Services	\$	81,683	\$	5,000	\$	76,683	\$	70,898	\$	5,785	7.5%	
4120	Professional Services	\$	964,664	\$	411,000	\$	553,664	\$	570,297	\$	(16,633)	-3.0%	
4140	Rents & Fees	\$	1,005,917	\$	1,500	\$	1,004,417	\$	984,787	\$	19,630	2.0%	
4141	NPDES Fines	\$	9,000	\$	-	\$	9,000	\$	9,000	\$	-	0.0%	
4150	Maintenance & Repair	\$	939,500	\$	29,000	\$	910,500	\$	880,000	\$	30,500	3.3%	
4160	Monitoring	\$	577,967	\$	5,000	\$	572,967	\$	559,595	\$	13,372	2.3%	
4170	Travel & Training	\$	18,000	\$	-	\$	18,000	\$	18,000	\$	-	0.0%	
4191	Utility, Variable (PG&E)	\$	987,000	\$	1,000	\$	986,000	\$	916,000	\$	70,000	7.1%	
SUBTOT	AL ALL ACCOUNTS	\$	6,433,674	\$	459,000	\$	5,974,674	\$	5,699,024	\$	275,650	4.6%	
CONTRI	BUTION TO R&R FUND	\$	750,000			\$	750,000	\$	750,000	\$	-	0.0%	
TOTAL EX	KPENDITURES	\$	7,183,674	\$	459,000	\$	6,724,674	\$	6,449,024	\$	275,650	4.1%	

* Includes all agencies (Members and LAVWMA)

ITEM NO. <u>FM7</u> CARGILL PROJECT APPROVAL AGREEMENT AND CEQA DOCUMENTATION UPDATES

Recommendation

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

Strategic Plan Linkage

- 2. **Operations & Maintenance:** Ensure reliable operations and maintenance of the EBDA system to protect public health and the Bay.
 - c. Protect EBDA's infrastructure, including the easement and force main.
- 3. **Financial:** Develop financial strategies and practice sound fiscal management to ensure wise use of ratepayers' resources.
 - c. Identify and manage opportunities for revenue generation.
- 4. **Resilience:** Champion resilience for communities and the environment through regional leadership and advancing priority programs to support the Member Agencies in achieving their sustainability goals.
 - e. Facilitate innovative brine management projects that leverage EBDA's existing infrastructure.

Background

Since 2019, EBDA has been discussing an innovative project with Cargill, Incorporated (Cargill), a multi-national food and agriculture company. Cargill operates a solar salt facility in Newark where they harvest salts naturally occurring in the San Francisco Bay to produce table salt and other salt products. The salts that are not harvested into products are called mixed sea salts (MSS) and are held in ponds. The MSS has been accumulating at the Newark facility for many years, and the risk of wash out from sea level rise motivated Cargill to seek sustainable approaches to removing it.

Under the proposed project, Cargill plans to mix the MSS with Bay water to form a brine – MSS brine – which then can be pumped into a new pipeline that will connect to EBDA's system. Once built, the connection will allow Cargill to combine its MSS brine with EBDA's effluent so that the co-mingled stream can be discharged to the Bay under EBDA's existing National Pollutant Discharge Elimination System (NPDES) permit. EBDA's 2022 permit explicitly permits the addition of this Cargill MSS brine, with associated conditions.

On July 27, 2020, EBDA and Cargill entered into a Non-Binding Term Sheet to implement the project. On February 18, 2021, EBDA and Cargill entered into a Review and Reimbursement Agreement in which EBDA committed to act as the lead agency under the California Environmental Quality Act (CEQA) to analyze the environmental impacts associated with the project, and Cargill agreed to reimburse EBDA for costs EBDA incurs. In January 2023, EBDA, as the lead agency under CEQA, prepared and circulated for public comment a Draft Environmental Impact Report (DEIR). On June 15, 2023, EBDA certified the Final Environmental Impact Report (SCH No. 2022050436) (EIR) pursuant to Resolution No. 23-06.

Staff is proposing to bring a series of actions on the Cargill project to the Commission for consideration at its May 2025 meeting. Specifically, the Commission will be asked to consider a Project Approval Agreement, adoption of CEQA Findings of Fact and Statement of Overriding Considerations (SOC), and adoption of the Mitigation and Monitoring Plan (MMRP). The purpose of this report is to provide the Committee with background on these decisions and solicit any feedback to be incorporated into final documents.

Discussion

Project Approval Agreement

EBDA staff and legal counsel have been working with Cargill on a Project Approval Agreement intended to memorialize the anticipated approval of the project and provide Cargill with assurance that it can commence with certain construction activities on its salt production facility in Newark. Cargill cannot build the pipeline and other project components until Cargill and EBDA enter into the Operating Agreement that sets forth all the terms EBDA needs to ensure Cargill's MSS Brine is managed in compliance with EBDA's NPDES Permit and other EBDA directives.

The key terms of the agreement are:

- <u>Article 2 (Cooperation)</u> requires that the parties work cooperatively and toward an Operating Agreement.
- <u>Section 3.2 (Reimbursement)</u> delineates the activities that trigger Cargill's duty to reimburse EBDA for costs and allows EBDA to amend hourly rates that apply to the reimbursement.
- <u>Section 3.5 (Route)</u> requires that Cargill obtain EBDA's consent before finalizing a route for the pipeline that will eventually connect to EBDA's system.
- <u>Section 3.7 (Insurance)</u> requires that Cargill obtain insurance to cover not only its operations under the agreement but EBDA's as well. The parties are still negotiating terms for this provision. Either Cargill will name EBDA as an additional named insured on its policy or Cargill will pay for a policy that EBDA obtains for the project.
- <u>Section 5.4 (Advanced Facilities)</u> allows Cargill, in advance of the Operating Agreement, to construct facilities at its Newark salt facility.
- <u>Section 5.5 (Additional Facilities)</u> allows, similar to Section 5.4, Cargill to construct any other additional facilities that EBDA approves.
- <u>Article 6 (Indemnity)</u> requires Cargill to indemnify EBDA for any and all claims that relate to the Project Approval Agreement, including claims for pollution pre-existing prior to the agreement. As to pollution, the indemnity applies even if the pollution levels are below action levels. Staff is still negotiating to ensure that Cargill's indemnity applies to claims attributable to EBDA's "sole gross negligence or willful misconduct,"

but Cargill has not accepted this provision; therefore, insurance may need to cover this category of potential claims.

- <u>Section 7.1.4 (Representations)</u> requires that no EBDA officials have a financial interest in the agreement or a conflict of interest.
- <u>Article 9 (Termination)</u> and <u>Article 14</u> (Default) address termination and defaults under the agreement.
 - Article 9 allows EBDA to terminate the Project Approval Agreement for cause and allows Cargill to terminate for any reason, with or without cause (as long as Cargill pays all costs due to EBDA under the agreement). The agreement terminates automatically if there is a judgment or order from a court mandating that EBDA set aside its approvals.
 - Article 14 also allows termination if either party defaults and has not timely cured the default. If either party defaults, the other party has rights to pursue legal remedies that may apply to remedy the default, such as requiring payment of all costs due under the agreement or demanding specific performance of certain duties.
- <u>Articles 10 and 11 (Dispute Resolution and Judicial Review)</u> require that EBDA and Cargill meet and mediate to resolve disputes before filing litigation in court. Section 11.3.1 requires cooperation to defend any lawsuit brought to challenge the project.
- Articles 12 and 13 (Notifications and Assignment) are standard provisions.

EBDA's action with respect to the Project Approval Agreement cannot occur until after completion of the CEQA process, discussed below. This is because CEQA requires a public agency to analyze the environmental impacts of a proposed action before approving or taking that action. If approved, the Project Approval Agreement will incorporate and attach the EBDA Resolution that will adopt the CEQA Mitigation Monitoring and Reporting Program (MMRP) and the Findings of Fact and Statement of Overriding Considerations (CEQA Findings).

<u>CEQA</u>

Approval of a project under CEQA requires three steps: (1) certification of the environmental review document (in this case, the EIR); (2) adoption of CEQA findings regarding the environmental impacts of the project and adoption of mitigation measures; and (3) approval of the project.

As noted above, EBDA certified the final EIR on June 15, 2023. Although the EIR was certified, EBDA did not approve a project at that time. If EBDA decides to adopt the Project Approval Agreement, CEQA requires that EBDA have adopted the MMRP and made the required CEQA Findings. Specifically, to approve the project, EBDA must do the following:

Agenda Explanation East Bay Dischargers Authority Financial Management Committee April 14, 2025

- Adopt CEQA Findings (which makes factual findings of the impacts of the project as contained in the certified EIR);
- Adopt the MMRP;
- Adopt the SOC (for any impacts that remain significant and unavoidable after mitigation).

Because EBDA did not approve a project at the time of the certification of the Final EIR, EBDA must make additional findings under CEQA. These required findings must address whether there are project changes, changes in circumstances or new information that there would be new or more severe impacts of the project than described in the EIR. Sections 15162-15164 of the CEQA Guidelines define the standards for determining the appropriate level of subsequent environmental review.

EBDA staff, with technical support from environmental consultant Ascent, has concluded that, in accordance with Section 15164, minor technical changes and additions to the certified EIR are necessary in response to new information that became known after the EIR was certified. EBDA staff also concluded that none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have been triggered. EBDA is, therefore, preparing an addendum to the Final EIR to address new information that became known after the EIR was certified. The addendum will provide further analysis regarding the Crotch's bumble bee (*Bombus crotchii*) and burrowing owl (*Athene cunicularia*), which were designated as candidates for listing as endangered under the California Endangered Species Act. This addendum will be attached to the certified EIR for the Commission's consideration.

In addition, EBDA staff and Ascent are preparing draft CEQA Findings/SOC and an updated MMRP for the Commission's consideration. CEQA Guidelines Section 21081 and CEQA Guidelines Section 15091 require that written findings be made for significant effects, accompanied by a brief explanation of the rationale for each finding. Staff expects to present the Final EIR Addendum, CEQA Findings, SOC, and MMRP for the Commission's consideration in May. The documents will be posted on EBDA's website in advance of the meeting.

THIS PAGE INTENTIONALLY LEFT BLANK



A Joint Powers Public Agency

ITEM NO. 13

OPERATIONS & MAINTENANCE COMMITTEE AGENDA

Monday, April 14, 2025

4:00 PM

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

Committee Members: Young (Chair); Azevedo

- OM1. Call to Order
- OM2. Roll Call
- OM3. Public Forum
- **OM4. EBDA Permit Compliance** (The Committee will be updated on EBDA's NPDES compliance.)

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, contact Juanita Villasenor at juanita@ebda.org or (510) 278-5910. 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 <u>http://www.ebda.org</u>.

Next Scheduled Operations and Maintenance Committee is Monday, May 12, 2025

ITEM NO. OM4 EBDA PERMIT COMPLIANCE

Recommendation

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

Discussion

EBDA and its members continued our NPDES compliance in February, and preliminary March data indicates compliance as well, with one exception. San Leandro's Water Pollution Control Plant experienced an upset in late March that led to exceedances of CBOD limits. San Leandro staff are working to determine the cause of the upset, including investigating whether an industrial discharge may be impacting the process. Member Agency CBOD and TSS performance are shown below. A table with bacterial indicators follows.





	FECAL	ENTERO
Date	MPN/ 100mL	MPN/ 100mL
Limit (90th Percentile)	1100	1100
Limit (Geomean)	500	280
April 2024 Geomean	9	3
May 2024 Geomean	12	4
June 2024 Geomean	60	9
July 2024 Geomean	59	5
August 2024 Geomean	153	21
September 2024 Geomean	109	13
October 2024 Geomean	33	4
November 2024 Geomean	24	2
December 2024 Geomean	22	5
January 2025 Geomean	25	5
2/3/2025	350	2
2/4/2025	17	22
2/5/2025	NA	10
2/10/2025	110	10
2/11/2025	17	22
2/12/2025	NA	17
2/17/2025	17	10
2/18/2025	49	8
2/24/2025	31	13
2/25/2025	49	6
February 2025 Geomean	44	10
3/3/2025	17	13
3/4/2025	17	15
3/5/2025	NA	2
3/10/2025	13	2
3/11/2025	31	10
3/17/2025	17	20
3/18/2025	23	47
3/24/2025	49	29
3/25/2025	11	57
3/31/2025	17	15
March 2025 Geomean	20	13

EBDA Bacterial Indicators

ITEM NO. OM5 STATUS REPORT

Union Effluent Pump Station (UEPS)

No change; all equipment is operational.

Hayward Effluent Pump Station (HEPS)

Effluent Pump Replacement Project

Vibration testing was completed on the two new HEPS pumps, and both new pumps tested well below the allowable vibration limits. Both pumps have been operating for almost three months without any major issues. As previously discussed, one of the new pumps makes an unusual intermittent noise, though it does not appear to impact operations. The pump manufacturer is so confident in the performance of their pumps that they have agreed to double the length of the warranty on all four pumps because of the noise from the one pump. The new extended warranty starts the date that each pump is placed in service. On April 11, Pump Repair Service is going to remove the next old pump, and on April 15, DW Nicholson is going to start work on the new concrete pump pad.

Oro Loma Effluent Pump Station (OLEPS)

Alameda County Department of Environmental Health Inspection

On March 18, 2025, the Alameda County Department of Environmental Health, Hazardous Materials Division, Certified Unified Program Agency (CUPA) conducted an inspection of EBDA & OLEPS. The inspection focused on the following four programs:

- Hazardous Materials Business Plan
- Hazardous Waste Generator Small Quantity Generator
- Aboveground Petroleum Storage Act Tier II
- Clean Water Program

The inspection included review of Oro Loma's Spill Prevention Control and Countermeasure (SPCC) Plan, which includes OLEPS and EBDA's Hazardous Materials Business Plan; Waste Manifests; Aboveground Storage Tank (AST) documentation; Training Records; and information reported to the California Environmental Reporting System (CERS). The inspection also included a site inspection of OLEPS.

There was one item identified during the inspection, and corrective documentation was returned to the Alameda County Department of Environmental Health within two days of receiving the inspection reports. The item was "failed to maintain documentation of arrangements with the local fire department and other emergency response agencies; or if none exist, failed to document that the attempt to make arrangements was made."

Completing the Arrangements with Local Authorities Log is a new requirement. Below is a list the of the "Local Authorities" contacted by EBDA:

- Police Department Alameda County Sheriff's Department
- Fire Department Alameda County Fire Department
- Emergency Response Contractors Safety-Kleen & Clean Harbors
- Equipment Suppliers Sunbelt Rentals
- Hospitals Eden Medical Center & Concentra Urgent Care
- Other Emergency Response Teams(s) Oro Loma Sanitary District Operations & Maintenance Departments

The inspection reports and a redacted version of the completed Arrangements with Local Authorities Log are attached.

OLEPS Water System

On March 17, DW Nicholson replaced two of the valves and two check valves on the discharge side of the water pumps at OLEPS. This water system provides cooling water for the OLEPS Effluent Pumps Right Angle Gear Drives. The work was completed for a total cost of \$11,837 for parts and labor. This replacement was paid for out of the Fund 31 RRF Small Projects Fund. During this replacement, the condition of the rest of the system was assessed, and it was determined that the remaining three valves and the strainer should be replaced. A project will be added to the FY 2025/2026 RRF Project List.



Old Valves & Check Valves

New Valves & Check Valves

Automatic Transfer Switch Upgrade

Todd Beecher, EBDA's contract electrical engineer, has updated the OLEPS electrical system single line diagrams and completed a design memorandum for two new automatic transfer switches (ATSs) at OLEPS. Mr. Beecher will present his recommendations to the MAC at its next meeting. The two new ATSs will improve the reliability of the pump station
Agenda Explanation East Bay Dischargers Authority O&M Agenda April 14, 2025

in the event of a power outage. If PG&E power fails, the OLEPS emergency generator is the primary backup power source. Currently, if the emergency generator fails to start, operators can manually switch to the secondary source of backup power from OLSD. The installation of two new ATSs will allow the switch from primary to secondary backup to occur automatically. This ATS work is being completed as part of Phase 2 of the OLEPS Electrical Upgrades. Replacement of the breakers and refurbishment of the Main Switchboard was completed in Phase 1 of the OLEPS Electrical Upgrades last year.

Skywest Pump Station

Recycled Water Production

During the month of March 2025, the Skywest Recycled Water System operated for two days and produced 1.11 million gallons of recycled water.

Marina Dechlorination Facility (MDF)

No change; all equipment is operational.

Force Main

Eden Landing Levee Breach

The California Department of Fish and Wildlife (CDFW), Bay Delta Region 3 manages the Eden Landing Ecological Reserve. CDFW first became aware of a levee breach near EBDA's 60-Inch force main in late January of 2025, which they believe occurred in December 2024 during large winter storms and King Tides. In mid-February, CDFW notified EBDA, and staff immediately engaged DCM Consulting, Inc. (DCM), EBDA's contract geotechnical engineer, to evaluate potential impacts of the breach on the pipeline. DCM determined that the levee breach itself is not an immediate threat to the force main, but the levee repair could be. DCM prepared a Technical Memorandum (TM) that was forwarded to CDFW (see attached). EBDA has requested that CDFW actively engage EBDA in planning and implementing the repair.

Operations Center

No change; all equipment is operational.

Miscellaneous Items

Underground Service Alerts

EBDA received eight (8) Underground Service Alert (USA) tickets during the month of February 2025. Two required an Electronic Positive Response (EPR), and of the two, one required a call and email to the excavator, and field verification.

Wet Weather

During the month of March 2025, there were no significant rain events that required the operation of an OLEPS diesel pump, and there were no capacity exceedance events.

Total rainfall for the month of March 2025 (in inches) was as follows:

Oakland	Hayward	Livermore
1.07	1.72	1.93

Special Projects

Cargill Brine Project

As discussed at previous Commission Meetings, following certification of the Final Environmental Impact Report (EIR) for the proposed project, Cargill informed EBDA staff that they made the decision to re-evaluate the pipeline route. Cargill is continuing to refine the route and is also investigating an alternative that would upgrade and repurpose a former Shell pipeline. Cargill's preliminary schedule shows construction beginning sometime between 2027 and 2030 depending on permitting, with operation commencing between 2031 and 2033.

Cargill has requested that EBDA consider a Project Approval Agreement between the parties that would allow Cargill to begin construction on elements of the project that do not directly affect EBDA, such as reconfiguration of intakes and pond structures at Cargill's Newark salt facility. Staff is currently working with Cargill to negotiate this agreement and expects to bring it to the Commission for consideration in the coming months. The Agreement would be accompanied by findings and a resolution to approve the EIR, including an EIR Addendum that analyzes mitigation measures for species for which the endangered species listing status changed following EIR certification. Once negotiated, the Project Approval Agreement would be superseded by the final Operating Agreement. Additional information on the Project Approval Agreement and California Environmental Quality Act (CEQA) documentation can be found in Item No. FM7.

Advanced Quantitative Precipitation Information (AQPI) Project

The regional AQPI project continues to move forward with the goal of improving the prediction of rainfall events in the Bay Area. Following a series of delays, the East Bay radar was installed at <u>Rocky Ridge</u> in Las Trampas Regional Wilderness Park in December 2022, and data from the site became available in December 2023. The AQPI Program Management team developed an updated website and data management tools for the 2024-2025 wet season. Agencies are currently developing additional tools to make the data more accessible for use in decision-making. A 2-day workshop with agencies and program managers is scheduled for June 2025.

Sonoma Water, which has acted as program manager and grant administrator for the project since its inception, is in the process of reaching out to participating agencies regarding future funding needs. This includes funding for installation of a C-band radar to

Agenda Explanation East Bay Dischargers Authority O&M Agenda April 14, 2025

complete the regional radar network, as well as long-term funding to the Center for Western Weather and Water Extremes (CW3E) at Scripps Institution of Oceanography, UC San Diego, for AQPI system operation, maintenance, and improvements. This local funding would begin in Fiscal Year 2026-2027, and would supplement state and federal funding that the team is also seeking. More information will be provided to the Commission as the specific request becomes clear.



ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS MATERIALS DIVISION CERTIFIED UNIFIED PROGRAM AGENCY (CUPA) 1131 HARBOR BAY PARKWAY ALAMEDA, CA 94502-6577 https://deh.acgov.org/hazmat/ (510) 567-6702

INSPECTION REPORT - SUMMARY OF VIOLATIONS AND COMMENTS

CERS ID: 10188879 Purpose: Routine

Date: 03/18/2025

Facility Name: EAST BAY DISCHARGERS AUTHORITY

Address: 265

2651 GRANT AVE SAN LORENZO CA 94580

Aboveground Petroleum Storage Act - Tier II

Additional Comments: On site at East Bay Dischargers Authority located at 2651 Grant Ave. San Lorenzo for the APSA Tier II inspection. There were no violations observed during this inspection.

	Hazardous Waste Generator - Small Quantity Generator							
6 -	Maintained record of arrangements with emergency response agencies or attempt to make arrangements Observation: Owner/Operator failed to maintain documentation of arrangements with the local fire department and other emergency response agencies; or if none exist, failed to document that the attempt to make the arrangements was made. Class: WINCH ATION							
	Code Section: 22 CCR 12 66262.16(b)(6)(F)2, 66262.17(a)(6), 66262.256(b) Correct By: 04/17/2025							
	Corrective Action: Document arrangements that have been made with local fire department and other emergency response agencies, or, if attempts were made unsuccessfully, document that attempts to make arrangements were made.							
Ado	litional Comments: On site at East Bay Dischargers Authority located at 2651 Grant Ave. San Lorenzo for the HW Generator inspection.							
As r the links	nany have heard, the Generator Improvement Rule (GIR) went into effect on Monday, July 1, 2024. The rulemaking reorganized several sections of California Code of Regulations (CCR) and made other updates to align with federal requirements. For additional information and resources, follow the s below.							
• GI	R information webpage – for general information. R rulemaking webpage – for information on the rule making							
• Re • Fr to q	egulatory crosswalk – for a comparison of the 'old' California Code of Regulations (CCR) citation with the 'new' CCR citation under the GIR. equently asked questions (FAQ) (Link can also be found on right-hand side in the Hazardous Waste Links of the GIR information webpage) – answers uestions you may have regarding GIR.							
• Qu web	Lick Reference Guide (QRG) and CERS California Environmental Reporting System template and instructions (towards the top of the GIR information page, look for the 'template' link) - note that the QRG is a new requirement for individual large quantity generators to have succinct information include for emergency responders in the event they need to be called out to address an emergency Expression Contingency Plan does not the end of the second secon							

The numbering of some Federal Regulations has changed and California regulations may not yet reflect the renumbering, see Federal Register Vol. 81, No. 288 for a crosswalk of the previous citation to the new citations.

Hazardous Materials Business Plan

Additional Comments: On site at East Bay Discharger Authority located at 2651 Grant Ave. San Lorenzo for the HMBP inspection.

There were no violations observed during this inspection.

This inspection report is a "NOTICE TO COMPLY". Please correct all violations immediately and submit proof of correction to ACDEH. ACDEH may reinspect your facility to verify compliance.

Minor violations that are uncorrected 30 days after the date of inspection, and Class I and Class II violations are subject to formal enforcement action. Enforcement may include civil and/or criminal penalties under applicable local, state and/or federal laws or regulations. Formal enforcement action and/or penalty assessment may be initiated at any time without further notice and penalties may be calculated from the date of the violation.

Signature: 255 June	
Inspector Name:	Date:
Timothy Hildreth	03/18/2025

Owner/Facility representative who gra	nted consent to inspect the facility	Owner/Facility representative who reviewed the inspection report				
Printed Name: Howard Cin	Signature:	Printed Name: Howard Cin	Signature:			
Title/Position: Operations and Maintenance Manager	Date: 03/18/2025	Title/Position: Operations and Maintenance Manager	Date: 03/18/2025			



ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS MATERIALS DIVISION CERTIFIED UNIFIED PROGRAM AGENCY (CUPA) 1131 HARBOR BAY PARKWAY ALAMEDA, CA 94502-6577 https://deh.acgov.org/hazmat/ (510) 567-6702

INSPECTION REPORT

Hazardous Materials Business Plan

Facility Name: EAST BAY DISCHARGERS AUTHORITYCERS ID: 10188879Purpose: RoutineDate: 03/18/2025

Address: 2651 GRANT AVE SAN LORENZO CA 94580

NVO = No Violation Observed	tion Observed Out = Out of com		nplia	ance N/O = Not Observed		N/A = Not applicable					
INSPECTION CATEGORY	COMPL		MPL	ANC	E	INSPECTION CATEGORY		CO	MPL	IANC)E
ADMINISTRATION	Class	NVO	OUT	N/O	N/A	REMOTE, UNSTAFFED	Class	NVO	OUT	N/O	N/A
 Established/implemented a business plan when handling hazardous materials in reportable quantities 		X				17. Remote unstaffed facility exemption requirements are met when not submitting a business plan					X
2. Business plan electronically submitted initially, annually, or triennially		Х				AGRICULTURAL HANDLERS	Class	NVO	ουτ	N/O	N/A
3. Business plan readily available to site personnel responsible for emergency response or training		X				18. Agricultural handler exemption requirements					
4. Business plan reviewed and electronically certified as complete/accurate on or before the due date		Х				are met when not submitting an emergency response plan					X
 Updated within 30 days of 100% increase or new haz; change of address/owner/name; or change in ops 					Х	19. Agricultural handler exemption requirements are met when not submitting a training program					X
6. Actual or threatened release reported to the unified program agency and Cal OES					Х	20. Warning signs posted on buildings where pesticides, petroleum, or fertilizers are stored					X
7. Property owner notified in writing that business is in compliance with business plan requirements		X				SALE/PROVISION RECORD	Class	NVO	OUT	N/O	N/A
8. Lessee provided copy of business plan to owner within 5 days after request		X				21. Hazardous materials sale or provision records submitted to UPA within 5 days of request					X
OWNER/OPERATOR INFORMATION	Class	NVO	OUT	N/O	N/A	TRANSEER DISCLOSURE	Class		ОЛТ	N/O	NI/A
9. Business Owner/Operator ID and Business Activities pages electronically submitted and are accurate		X				22. Notified UPA, when instructed to do so, of hazardous materials transfer					×
INVENTORY	Class	NVO	OUT	N/O	N/A		Class		ОШТ	N/O	NI/A
10. Complete and accurate Hazardous Materials Inventory information electronically submitted		X				23. Administration/Documentation - General	01833	×			
CONSUMER PRODUCT/RETAIL ESTABLISHMENT	Class	NVO	Ουτ	N/O	N/A	24. Administration/Documentation - General Local		Х			
 Consumer product reported when stored at place of manufacture, warehouse, or where dispensed 					X	25. Training - General		X			
12. Consumer product at retail establish. reported					X	26. Training - General Local Ordinance		Х			
SITE MAP	Class	NVO	ουτ	N/O	N/A	27. Operations/Maintenance - General		Х			
13. Site Map with all required content electronically submitted		Х				28. Operations/Maintenance - General Local Ordinance		X			
EMERGENCY RESPONSE PLAN	Class	NVO	OUT	N/O	N/A	29. Release/Leaks/Spills - General		X			
14. Electronically submitted adequate response plan/procedures for release/threatened release of hazmat		X				30. Release/Leaks/Spills - General Local Ordinance		X			
TRAINING PROGRAM	Class	NVO	Ουτ	N/O	N/A		╉──┦				
15. Established and electronically submitted adequate training program		X				131. Abandonment/Illegal Disposal/Unauthorized Treatment - General		X			
16. Provided initial and annual training and maintained training records for a minimum of three years		X				32. Abandonment/Illegal Disposal/Unauthorized Treatment - General Local Ordinance		X			

\fbox There were no violations observed during this inspection.

See attached Summary for additional information.

Signature: 355 /	
Inspector Name:	Date:
Timothy Hildreth	03/18/2025

Owner/Facility representative who gra	nted consent to inspect the facility	Owner/Facility representative who reviewed the inspection report				
Printed Name: Howard Cin	Signature:	Printed Name: Howard Cin	Signature:			
Title/Position: Operations and Maintenance Manager	Date: 03/18/2025	Title/Position: Operations and Maintenance Manager	Date: 03/18/2025			



ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS MATERIALS DIVISION CERTIFIED UNIFIED PROGRAM AGENCY (CUPA) 1131 HARBOR BAY PARKWAY ALAMEDA, CA 94502-6577 https://deh.acgov.org/hazmat/ (510) 567-6702

INSPECTION REPORT

Hazardous Waste Generator - Small Quantity Generator

 Facility Name:
 EAST BAY DISCHARGERS AUTHORITY
 CERS ID: 10188879
 Purpose: Routine
 Date: 03/18/2025

 Address:
 2651 GRANT AVE SAN LORENZO CA 94580
 2651 GRANT AVE SAN LORENZO CA 94580
 2651 GRANT AVE SAN LORENZO CA 94580

NVO = No Violation Observed C)ut = Out of complian			nplia	nce N/O = Not Observed		N/A = Not applicable				
INSPECTION CATEGORY		COMPLIANCE				INSPECTION CATEGORY		CC	COMPLIANCE			
RECORDKEEPING/ DOCUMENTATION: ID NUMBER	Class	NVO	Ουτ	N/O	N/A	HAZARDOUS WASTE MANAGEMENT: DISPOSAL	Class	NVO	OUT	N/O	N/A	
1. Obtained ID# and maintained ID# through completion of annual eVQ.		Х				30. Disposed of hazardous waste at an authorized location		Х				
2. RCRA SQG maintained ID# by notifying DTSC by Sept 1 each year renotifications are required					Х	31. Quarantined HW not removed/ transferred/disposed without permission by					Х	
RECORDKEEPING/ DOCUMENTATION: CONTINGENCY PLAN	Class	NVO	Ουτ	N/O	N/A	authorized agent or a court						
6. Maintained record of arrangements with emergency response agencies or attempt to make arrangements	MINOR		×			ACCUMULATION TIME LIMITS 32. VSQG disposed of waste within 180 days of	Class			N/O	N/A	
RECORDKEEPING/ DOCUMENTATION: TRAINING	Class	NVO	ουτ	N/O	N/A	accumulation start date (90 days for AHW) 33. SQG disposed of hazardous waste within 180		2				
7. Employees thoroughly familiar with all waste handling and emergency procedures		X				days of accumulation start date (90 days for AHW) 35. Met all requirements for hazardous waste		2				
RECORDKEEPING/ DOCUMENTATION:	Class	NVO	ουτ	N/O	N/A	satellite accumulation					X	
11. Prepared a Uniform Hazardous Waste		Х					Class	NVO	OUT	N/O	N/A	
12. Properly completed all Uniform Hazardous		Х				36. Labeled all containers or portable tanks containing hazardous waste		Х				
13. Completed all Uniform Hazardous Waste		Х				37. Accumulated hazardous waste in containers that are in good condition		X				
15. Signed copy of Uniform Hazardous Waste		Х				38. Hazardous waste accumulated in lined and/or compatible containers		Х				
16. Sent a legible copy of each Uniform Hazardous Waste Manifest to the DTSC within		X				39. Containers of hazardous waste closed except when adding or removing waste		X				
30 days of shipment 17 All consolidated manifest requirements are						40. Inspects all hazardous waste storage areas at least weekly		Х				
18 Exempt used oil management operating log					×	41. Incompatible waste in containers managed					X	
records are retained for 3 years					X	49. Empty containers > 5 gallons properly		X				
bill of lading for spent lead acid batteries for 3					×	managed HAZARDOUS WASTE MANAGEMENT: TANK						
RECORDKEEPING/ DOCUMENTATION: WASTE DETERMINATION	Class	NVO	ουτ	N/O	N/A	MANAGEMENT 50. Stationary tanks marked with "Hazardous				14/0	N/A	
20. Determined if waste generated is hazardous waste		Х				Waste", hazards of waste, and the accumulation start date					×	
21. Kept records of any test results, waste analyses, or other determinations		X				51. Continuously fed hazardous waste tanks are equipped with an overfill protection device					Х	
22. Determined land disposal restrictions for hazardous waste		X				52. Daily inspections of the hazardous waste tank systems conducted					Х	
RECORDKEEPING/ DOCUMENTATION: REPORTING	Class	NVO	Ουτ	N/O	N/A	53. Weekly inspections of the hazardous waste					Х	
23. Program data reported electronically, and accurately, when required		X				54. Removed hazardous waste from tanks,					X	
24. Submitted Recyclable Materials Report every two years					X	upon closure						
25. Remote Waste Consolidation Site Annual Notification submitted					Х	55. Uncovered hazardous waste tanks have 2 feet of freeboard unless equipped with adequate containment					X	
HAZARDOUS WASTE MANAGEMENT: DISPOSAL	Class	NVO	OUT	N/O	N/A		1	1	I	1	1	

29. Registered hazardous waste transporter used to transport hazardous waste			HAZARDOUS WASTE MANAGEMENT: RECYCLABLE MATERIALS	Class	NVO	ουτ	N/O	N/A
67. Recyclable material is managed properly								Х

INSPECTION CATEGORY		COMPLIANCE			СE	INSPECTION CATEGORY			COMPLIANC			
HAZARDOUS WASTE MANAGEMENT: USED OIL	Class	NVO	Ουτ	N/O	N/A	UNIVERSAL WASTE: ELECTRONIC DEVICES/CRT/PV MODULES	Class	NVO	Ουτ	N/O	N/A	
68. Generator does not intentionally contaminate used oil with other hazardous wastes HAZARDOUS WASTE MANAGEMENT: USED					X	94. Accepts 100kg or generates 5000 kg/yr of E- waste/CRTs/PV modules & reports to DTSC Feb 1					X	
OIL AND FUEL FILTERS	Class			N/O	N/A					 		
					X	NOTIFICATION	Class	NVO	OUT	N/O	N/A	
ACID BATTERIES	Class	NVO	Ουτ	N/O	N/A	95. UWH sending devices/CRTs/CRT glass to any					×	
70. Meets requirements for handling/storing/transporting lead acid batteries					X	notification						
71. Meets all requirements when accepting spent lead-acid batteries					X	UNIVERSAL WASTE: UW MANAGEMENT	Class	NVO	Ουτ	N/O	N/A	
72. Properly manages, stores and labels all damaged lead-acid batteries					Х	96. UWH labeled all universal waste					X	
HAZARDOUS WASTE MANAGEMENT: CERTIFIED APPLIANCE RECYCLERS	Class	NVO	Ουτ	N/O	N/A	97. UWH accumulated universal waste for no longer than 1 year					X	
73. Obtained Certified Appliance Recycler certification (CAR) from the DTSC					X	98. UWH meets all accumulation standards for					X	
74. CAR properly managed all MSRH as hazardous waste					X					┣──		
75. CAR maintains documentation regarding removal and management of MRSH from appliances					X	99. Universal waste aerosol cans managed to prevent fire, explosion and unauthorized release					X	
HAZARDOUS WASTE MANAGEMENT: REUSABLE SOILED TEXTILES	Class	NVO	OUT	N/O	N/A	100. Notified UPA of aerosol can processing procedures prior to starting this process					X	
76. Properly managed reusable soiled textile materials prior to being sent for laundering					X	101. UWH properly prepares, handles and retains					X	
HAZARDOUS WASTE MANAGEMENT: LABORATORY WASTE	Class	NVO	ουτ	N/O	N/A				_	<u> </u>	_	
77. Laboratory waste managed in accordance with HSC 25200.3.1(b)					X	to an appropriate destination facility					×	
78. Laboratory waste treated in accordance with HSC 25200.3.1(c)					X	103. UWH properly cleaned up and contained					×	
HAZARDOUS WASTE MANAGEMENT: UNAUTHORIZED TREATMENT	Class	NVO	OUT	N/O	N/A	UNIVERSAL WASTE: TRAINING	Class	NVO	ουτ	N/O	N/A	
79. Obtained a HW facilities permit or grant of authorization prior to treating hazardous waste					X	104. UWH complied with all universal waste					X	
GENERAL FACILITY OPERATIONS: SITE SAFETY	Class	NVO	ουτ	N/O	N/A	GENERAL FACILITY REQUIREMENTS		NVO	ουτ	N/O	N/A	
80. Posted valid emergency information next to the telephone		X				105. Administration/Documentation - General		X				
81. Emergency coordinator on the premises or on call		Х				106. Administration/Documentation - General Local Ordinance		X				
82. Facility equipped with all required emergency equipment		Х				107 Training - General		Х				
83. Tests and maintains all required safety equipment at the facility		X				108. Training - General Local Ordinance		X				
84. Maintains adequate aisle space		Х				109. Operations/Maintenance - General		X				
85. Maintains and operates the facility to minimize the possibility of fire/explosion/release		Х				110. Operations/Maintenance - General Local		2				
UNIVERSAL WASTE: >5000 KG	Class	NVO	OUT	N/O	N/A	Ordinance		2				
91. UWH notified the EPA and obtained a federal ID number prior to storing 5,000 kg or more of RCRA UW					X	111. Release/Leaks/Spills - General		X				
92. UWH obtained an ID# from DTSC prior to storing >5,000 kg of UW when a fed ID# is not required					X	112. Release/Leaks/Spills - General Local Ordinance		X				
UNIVERSAL WASTE: ELECTRONIC DEVICES/CRT/PV MODULES	Class	NVO	ουτ	N/O	N/A	113. Abandonment/Illegal Disposal/Unauthorized Treatment - General		X				
93. UWH of PV modules/e-devices/CRTs/CRT glass that doesn't treat waste submitted required info to DTSC					X	114. Abandonment/Illegal Disposal/Unauthorized Treatment - General Local Ordinance		X				

- $\hfill\square$ There were no violations observed during this inspection.
- See attached Summary for additional information.

Signature: 95 / 1800	
Inspector Name:	Date:
Timothy Hildreth	03/18/2025

Owner/Facility representative who gra	nted consent to inspect the facility	Owner/Facility representative who reviewed the inspection report				
Printed Name: Howard Cin	Signature:	Printed Name: Howard Cin	Signature:			
Title/Position: Operations and Maintenance Manager	Date: 03/18/2025	Title/Position: Operations and Maintenance Manager	Date: 03/18/2025			



ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS MATERIALS DIVISION CERTIFIED UNIFIED PROGRAM AGENCY (CUPA) 1131 HARBOR BAY PARKWAY ALAMEDA, CA 94502-6577 https://deh.acgov.org/hazmat/ (510) 567-6702

INSPECTION REPORT

Aboveground Petroleum Storage Act - Tier II

Facility Name: EAST BAY DISCHARGERS AUTHORITY

CERS ID: 10188879 **Purpose:** Routine **Date:** 03/18/2025

Address: 2651 GRANT AVE SAN LORENZO CA 94580

NVO = No Violation Observed	Out = Out of complianc		ance	e N/O = Not Observed N/A =		= Not applicable					
INSPECTION CATEGORY	COMPLIANCE		СE	INSPECTION CATEGORY		со	MPL	ANC	Э		
REQUIREMENT TO PREPARE AND IMPLEMENT	Class	NVO	Ουτ	N/O	N/A	GENERAL SPCC REQUIREMENTS: DISCHARGE REPORTING/RESPONSE/DISPOSAL/PREDICTION	Class	NVO	ουτ	N/O	N/A
SPCC has been prepared SPCC plan has been prepared that meets all service prepared that meets all		X				24. SPCC Plan addressed countermeasures for discharge discovery, response and cleanup		X			
3. SPCC has been implemented		X				25. SPCC Plan addresses disposal methods for		Х			
4. SPCC onsite If facility staffed 4 hrs/day, or at the		X				recovered materials					
nearest field office if not so attended						discharge		X			
certified.		×				27. SPCC organized so discharge procedures are		X			
8. Facility prepared appropriate SPCC when no		X				readily usable if the facility has no response plan	╉───┦		-	[
SPCC AMENDMENTS	Class	NVO	Ουτ	N/O	N/A	quantity of oil that could be released from a discharge	•	X			
9. Facility has amended SPCC as necessary		X				GENERAL SPCC REQUIREMENTS:	Class	NVO	Ουτ	N/O	N/A
10. SPCC has been implemented within 6 months of		X				30. SPCC addresses the appropriate general	+	×			
13. Tech amendments certified when a change in						containment/diversionary structures/equipment		~			
facility design/operations occurs, & by PE when required		×				31. Appropriate (general) containment/diversionary structures/equipment have been provided		Х			
FIVE YEAR REVIEW	Class	NVO	Ουτ	N/O	N/A	GENERAL SPCC REQUIREMENTS:	Class	NVO	OUT	N/O	N/A
14. 5 year review performed on SPCC and documented		Х				32. Impracticability of containment/diversionary items,	,				X
GENERAL SPCC REQUIREMENTS	Class	NVO	OUT	N/O	N/A	33. Periodic integrity/leak testing performed with					N
15. SPCC in writing, follows code seq/cross ref, good		Х				impracticability claim					~
16. SPCC Plan discusses conformance with all						34. If claiming impracticability of containment/diversionary items a contingency plan					×
SPCC rule requirements, & state		×				has been included					
GENERAL SPCC REQUIREMENTS:	Class	NVO	оит	N/O	N/A	35. If claiming impracticability written commitment of manpower, equipment, and materials provided					X
ENVIRONMENTAL EQUIVALENCE						GENERAL SPCC REQUIREMENTS: TRAINING	Class	NVO	OUT	N/O	N/A
addressed in SPCC, other than for secondary containment.					×	36. Employee training and spill prevention briefings discussed in SPCC plan		X			
GENERAL SPCC REQUIREMENTS: TIER II ALTERNATIVE MEASURES	Class	NVO	оит	N/O	N/A	37. Training provided for op/maint of equip, discharge procedures, laws/regs, general fac ops, and SPCC		Х			
18. PE certified enviro equivalence, impracticability, and produced water containers/piping, if needed					X	38. Person has been designated as accountable for discharge prevention and reports to management		X			
19. PE required attestations in the SPCC Plan for					X	39. Spill prevention briefings are conducted annually		X			
			_	_	_	GENERAL SPCC REQUIREMENTS: SECURITY	Class	NVO	OUT	N/O	N/A
DESCRIPTION/STORAGE/DIAGRAM	Class	NVO	OUT	N/O	N/A	40. SPCC addresses security measures-lighting,		Z			
20. Physical layout of the facility is adequately and accurately described in SPCC		X				access to handling/storage, valves/pumps/transfer equip		Σ			
21. SPCC Plan addresses the type of oil and storage capacity for all fixed and portable containers		X				41. Handling areas, valves, pumps/starter controls, load/unload connections secured, lighting adequate		X			
22. SPCC contains an adequate facility diagram		X					Class	NVO	OUT	N/O	N/A
GENERAL SPCC REQUIREMENTS: DISCHARGE REPORTING/RESPONSE/DISPOSAL/PREDICTION	Class	NVO	ουτ	N/O	N/A	42. SPCC adequately discusses facility tank car and					X
23. SPCC adequately addresses discharge prevention measures for routine handling, loading/unloading		×				43. Loading rack containment has capacity to contain single largest compartment of tank car/truck					X

INSPECTION CATEGORY		COMPLIANCE		СE	INSPECTION CATEGORY		CC	COMPLIA		ANCE	
GENERAL SPCC REQUIREMENTS: LOADING/UNLOADING RACKS	Class	NVO	ουτ	N/O	N/A	SPCC REQUIREMENTS FOR ONSHORE FACILITIES: EFFLUENT TREATMENT	Class	NVO	Ουτ	N/O	N/A
44. Vehicular departure warning system in place at facility with a loading/unloading rack					X	73. Discharge from effluent treatment facilities which discharge to navigable waterways observed		X			
GENERAL SPCC REQUIREMENTS: BRITTLE FRACTURE	Class	NVO	Ουτ	N/O	N/A	SPCC REQUIREMENTS FOR ONSHORE	Class	NVO	Ουτ	N/O	N/A
46. Brittle fracture evaluation of field-constructed aboveground tanks performed					X	74. Visible discharges promptly corrected and any					
GENERAL SPCC REQUIREMENTS: OIL-FILLED OPERATION EQUIPMENT	Class	NVO	Ουτ	N/O	N/A	accumulation of oil in diked areas promptly removed.		×			
47. Oil filled operational equipment containment standards are met		X				SPCC REQUIREMENTS FOR ONSHORE FACILITIES: MOBILE/PORTABLE CONTAINER	Class	NVO	Ουτ	N/O	N/A
SPCC REQUIREMENTS FOR ONSHORE FACILITIES: DRAINAGE	Class	NVO	Ουτ	N/O	N/A	75. Adequate secondary containment provided for		X			
48. Facility drainage or drainage controls adequately discussed		X				SPCC REQUIREMENTS FOR ONSHORE	Class	NVO	Ουτ	N/O	N/A
49. Facility drainage adequately restrained unless conditions met		X				FACILITIES: PIPING 76. SPCC Plan discusses aboveground piping,					
50. Valves used for drainage are manual (not flapper-type) to prevent a discharge		X				buried piping, piping inspections, and vehicle warnings.		X			
51. Drainage from undiked areas or diversion systems designed to retain final discharge in facility		X				77. Buried piping is inspected for deterioration if exposed and repaired if corrosion damage is found		Х			
52. Lift pumps provided for treated drainage waters when more than one treatment unit					X	78. Buried piping is corrosion protected with		X			
SPCC REQUIREMENTS FOR ONSHORE FACILITIES: BULK STORAGE CONTAINER- SPCC PLAN/COMPATIBILITY	Class	NVO	Ουτ	N/O	N/A	79. Terminal connection capped/blank flanged at		X			
53. Adequate discussion of all bulk storage containers located at the facility		X				service/standby					
54. Material and construction of all containers are compatible with the material stored		X				80. Pipe supports designed to minimize abrasion and corrosion, and allow for expansion and		X			
SPCC REQUIREMENTS FOR ONSHORE FACILITIES: SECONDARY CONTAINMENT	Class	NVO	Ουτ	N/O	N/A	contraction					
55. Adequately sized secondary containment provided and maintained for bulk storage containers		X				81. Aboveground valves, piping, and appurtenances are regularly inspected		X			
57. Secondary containment and leak detection provided for TIUGA piping if not viewable on all sides					X	82. Integrity/leak tested buried piping when installed, modified, constructed, relocated, or replaced		X			
58. Containment systems are sufficiently impervious to contain oil		X				83. Vehicle traffic warned of aboveground piping or other oil transfer operations					X
SPCC REQUIREMENTS FOR ONSHORE FACILITIES: DRAINAGE	Class	NVO	оит	N/O	N/A	EXCLUDED TIUGA REQUIREMENTS		NVO	Ουτ	N/O	N/A
59. Rainwater in diked areas is inspected before draining					X	84. Excluded TIUGA <55 gal has secondary containment, inspected monthly and log of inspections kept					X
60. Records maintained of drainage from diked areas					X		Class	NVO	ουτ	N/O	N/A
SPCC REQUIREMENTS FOR ONSHORE FACILITIES: CATHODIC PROTECTION	Class	NVO	ουτ	N/O	N/A	85. Oil filled electrical equipment exclusions have			_	_	
61. Buried section of partially buried or bunkered metallic tank has corrosion protection					X	been met, and where not met is included in SPCC plan					×
SPCC REQUIREMENTS FOR ONSHORE	Class	NVO	Ουτ	N/O	N/A	GENERAL FACILITY REQUIREMENTS	Class	NVO	OUT	N/O	N/A
62. SPCC discusses procedures to test/inspect storage containers for integrity per industry		X				87. Tank Facility Statement or Business Plan has been submitted		X			
63. Tanks inspected and tested by qualified person in accordance with industry standards		X				88. Spills/releases of 42 gallons or more of petroleum reported upon discovery to Cal OES &					×
64. Aboveground containers tested or inspected		Х				89 APSA program fee paid		X			
65. TIUGAs meet requirements for direct viewing or inspections/ leak detection					X	90. All/any permanently closed tanks are properly					×
66. Written Inspection/testing procedures kept, inspection/testing records signed, kept for 3 years		X				closed under the definition in 40 CFR 112.2					_
SPCC REQUIREMENTS FOR ONSHORE FACILITIES: STEAM RETURN/EXHAUST	Class	NVO	оит	N/O	N/A	Bit Substantial Harm Criteria certification maintained at the facility as required		X			
67. Steam return/exhaust lines that discharge to watercourse are monitored or have treatment					X	92. Administration/Documentation - General 93. Administration/Documentation - General Local					X
SPCC REQUIREMENTS FOR ONSHORE	Class	NVO	оит	N/O	N/A	94. Training - General					×
68. SPCC adequately describes overfill prevention methods and devices (systems used for each		X				95. Training - General Local Ordinance					X
container						96. Operations/Maintenance - General					X

71. Each container installation has a liquid level sensing device.	X		97. Operations/Maintenance - General Local			X
72. Liquid level sensing devices regularly tested to ensure proper operation	X		98. Release/Leaks/Spills - General			X

INSPECTION CATEGORY		COMPLIANCE		E	INSPECTION CATEGORY			COMPLIANCE			
GENERAL FACILITY REQUIREMENTS	Class	NVO	OUT	N/O	N/A	GENERAL FACILITY REQUIREMENTS	Class	NVO	OUT	N/O	N/A
99. Release/Leaks/Spills - General Local Ordinance					Х	101. Abandonment/Illegal Disposal/Unauthorized					×
100. Abandonment/Illegal Disposal/Unauthorized Treatment - General					Х	Treatment - General Local Ordinance					ζ

 \fbox There were no violations observed during this inspection.

See attached Summary for additional information.

Signature: 955 /		
Inspector Name: Timothy Hildreth	Date: 03/18/2025	

Owner/Facility representative who gra	nted consent to inspect the facility	Owner/Facility representative who reviewed the inspection report					
Printed Name: Howard Cin	Signature:	Printed Name: Howard Cin	Signature:				
Title/Position: Operations and Maintenance Manager	Date: 03/18/2025	Title/Position: Operations and Maintenance Manager	Date: 03/18/2025				



Time: 11:30 AM \Box Facility Information has changed

Reason for Inspection:	🔀 Routine In	nspection R	esponse to Compl	aint 🗌 Follov	v-Up Follow-up Inspection Due:					
NAME OF FACILITY EAST BAY DISCHARGERS AUTHORITY			SITE AD 2651 GRA	SITE ADDRESS 2651 GRANT AVE SAN LORENZO CA 94580						
CONTACT NAME PHO	DNE		BUSINES	SS TYPE/ACTIV	VITY SIC 9511 (see OSHA)					
Howard Cin (510) 278-5910		Water Tre	atment Plant	High priority facility					
Is the property owner different than the facility	owner? 🛛 📉	yes 🗌 no	If yes, complete	the following:						
NAME MAILING ADDRESS,				PHONE						
Is the facility covered under any other programs	s or permits? (check all that app	ly) 🗌 None	□ None □ Sanitary Sewer						
Air quality	lazmat busines	ss plan	Underg	ground storage ta	nks Aboveground storage tanks					
Fire department (hazmat storage)	lazmat waste g	generator	🗌 Retail 🛛	Food Facility	Other					
Is the facility covered under a stormwater perm	it? 🛛 🖾 I	Does not need cov	/erage	🗌 No, but may r	eed to be (Refer to Regional Board)					
		ndividual		General: D	oes the facility have a SWPPP? 🗌 yes 📓 no					
N/A = Not Applicable; PTNL = POTENTIAL for Pollutant Discharge: 1 = low potential, 2 = medium potential, 3 = high potential BMP = Best Management Practice: 0 = BMPs are effective, 1 = BMPs are fairly/almost effective, 2 = BMPs are not effective, 3 = No BMPs are implemented NSW = Non-Stormwater Discharge										
		Potential	Effectiveness	Actual Discharge	REMARKS: Describe recommendations, requirements, and time to implement. Check box if remark is a					
AREAS OF ACTIVITY	N/A	PTNL	BMP	NSW	requirement					
A. Outdoor Process/Manufacturing Areas	×				None Note:					
B. Outdoor Material Storage Areas		1	0		None Note: ConVault Diesel Tank with Triple Containment.					
C. Outdoor Waste Storage/Disposal Areas	X				None Note:					
D. Outdoor Vehicle and Heavy Equipment Storage, Maintenance Areas	×				None Note:					
E. Outdoor Parking Areas and Access Roads		1	0		None Note: All parking areas drain to three drains outside which goes back through the water treatment plan then to the well for discharge to the Bay.					
F. Outdoor Wash Areas	×				None Note:					
G. Rooftop Equipment	X				None Note:					
H. Outdoor Drainage from Indoor Areas	X				None Note:					
I. Other (describe)	X				None Note:					
COMMENTS/REMARKS/REQUIREMENT	S Struct	tural Control pres	ent 🗌 Maint	enance required	in storm drain system 🗌 yes 🛛 no					
Routine site inspection performed to evaluate th Control Board requires that all cites within Alar	e potential for neda County p	r site/business ope perform regular st	erations to impact ormwater inspecti	quality of on-site ons at industrial/	stormwater discharges. The Regional Water Quality commercial businesses.					
DOCUMENT ANY EXPOSURE TO ON-SITE	STORM DRA	AINS: No storm d	lrain. Water drains	to POTW.						
Number of BMP brochures distributed? 0 De	scribe:									
PRIORITY FOR RE-INSPECTION: \Box 1; F	irst 🗌 2; S	econd 🛛 3; Th	nird		Referred to:					
ENFORCEMENT: 🛛 None		Verbal Notice Warning Notice	Admin	istrative Action	Administrative Action Legal Action w/ Penalty &/or Cost Recovery					

Facility Representative:

446

Inspector:

205 /tea

Howard Cin, Operations and Maintenance Manager

Timothy Hildreth, Hazardous Materials Specialist



Arrangements with Local Authorities Log

Business Name:	East Bay Dischargers Authority
Business Address:	2651 Grant Avenue, San Lorenzo, CA 94580
CERS ID (if applicable):	10188879

In compliance with 22 CCR 66262.16(b)(6)(F)2; 66262.256, Generators must maintain records documenting arrangements with six local authorities, tabulated below. These records may include this form and/or other supporting documentation that either confirm such arrangements actively exist or, in cases where no arrangements exist, confirm that attempts to make such arrangements were made. Please ensure this form and/or any other records are readily available on-site at the facility for review and validation. Uploading this form to CERS is not required.

*Please note, submission of the Hazardous Materials Business Plan (HMBP) in the California Environmental Reporting System (CERS) does not satisfy the requirement for making, or attempting to make, arrangements with the six local authorities.

Local Authority	Name of Authority	Date of Communication	Type of Communication	Describe Arrangements Made, If Any
Example	Oakland Police Department	7/1/2024	verbal, email, mailed letter	none, 24hr spill response, etc.
Police Department	Alameda County Sheriff's Department	4/2/2025	Call 510-667-7721	None
Fire Department	Alameda County Fire Department	4/2/2025	Call 925-422-7594	None
Emergency Response Contractors	Safety-Kleen & Clean Harbors	4/2/2025	Call 408-294-8778 888-375-5336	24 Hour Spill Response
Equipment Suppliers	Sunbelt Rentals	4/2/2025	Call 510-394-6206	24 Hour Equipment Rental
Hospitals	Eden Medical Center & Concentra Urgent Care	4/2/2025	Call 510-537-1234 510-343-8300	None
Other Emergency	Oro Loma Sanitany District	4/2/2025	Call Joe Carlini	24 Hour Spill Response
Response Teams(s) Maintenance			Joe McCauley	

DCM Consulting, Inc.

Technical Memorandum

P.O. Box 225, Lafayette, CA 94549, Telephone: 925.322.9590

www.dcmconsults.com

To:	Howard Cin East Bay Dischargers Authority	Date: March 28, 2025
From:	Dave Mathy DCM Consulting, Inc.	File: No. 437
Subject:	Eden Landing Ecological Reserve North Creek Marsh Levee Breach and EBDA 60-inch Transport Pipeline Hayward, California	

1.0 INTRODUCTION

This technical memorandum presents the results of a geotechnical engineering evaluation of site conditions at a levee breach within Eden Landing Ecological Reserve in Hayward, California (see Figure 1 for site location). The State of California Department of Fish and Wildlife (CDFW), Bay Delta Region 3 manages the Eden Landing Ecological Reserve. CDFW first became aware of the levee breach in late January of 2025 (see Figure A-1 for levee breach location as provided by CDFW). CDFW believes that the levee breach occurred in December 2024 during large winter storms and King Tides. East Bay Dischargers Authority's (EBDA) Transport Pipeline, 60-inch RCP Force Main, crosses the Eden Landing Ecological Reserve and is in close proximity to the levee breach (see Figure 2).



Figure 1 – Location of levee breach in Eden Landing Ecological Reserve south of SR 92 and Arden Road in Hayward, California.

See Figure 2 for close-up view of the levee breach location and EBDA's Transport Pipeline alignment.



Figure 2 – Excerpt from EBDA Transport Pipeline, 60-inch RCP, Force Main alignment mapping on Google Earth imagery.

At this location the EBDA Transport Pipeline is a 60-inch inside diameter reinforced concrete pipe (RCP) Force Main.

PG&E towers (yellow arrows) are noted for reference.

Note existing levees parallel to and on each side of the EBDA Transport Pipeline alignment.

The EBDA Access Manhole shown is at EDBA Transport Pipeline Station 150+10 (see Figure A-2 for EDBA Transport Pipeline Plan and Profile). The levee breach is approximately 300 feet south of the Access Manhole at EBDA Station 150+10.

As shown in Figure 2 the EBDA Transport Pipeline is not located beneath the subject levee and levee breach. The EBDA Transport Pipeline alignment is parallel to the levee and approximately 40 feet northeast of the levee breach. The following site photographs have been provided by CDFW and EBDA.



Photo 1 – View of levee breach, looking south.

Dashed red line is the approximate EBDA Transport Pipeline alignment, approx. 40 feet northeast of the levee breach.

Photo provided by CDFW (Ref. 2). Per CDFW the levee breach is about 30 feet across by 30 feet wide by 10 feet high (Ref. 3).

Annotation by DCM.



Photo 2 – Close up view of levee breach looking south at the south side remaining levee.

Dashed red line is the approximate EBDA Transport Pipeline alignment.

Photo provided by CDFW. Per CDFW the breached levee is approximately 10 feet high (Ref. 3).

Annotation by DCM.

Eden Landing Ecological Reserve Levee Breach March 28, 2025 Page 4



Photo 3 – View of levee and EBDA Transport Pipeline alignment looking south.

Dashed red line is the approximate EBDA Transport Pipeline alignment, about 40 feet northeast of levee breach. Note existing levees on both sides of the Transport Pipeline alignment.

EBDA Access Manhole at Station 150+10 at photo bottom center.

The levee breach is approximately 300 feet south of the Access Manhole at EBDA Station 150+10.

Photo provided by EBDA.

Annotation by DCM.

EBDA Access Manhole Station 150+10



Photo No. 4 – View of levee breach looking southwest. Note washed out levee soil on the east (inland) side of the levee.

Dashed red line is the approximate EBDA Trasport Pipeline alignment about 40 feet northeast of levee breach.

Photo provided by EBDA.

Annotation by DCM.

EBDA has requested that DCM Consulting, Inc. (DCM) review the current site conditions and levee breach and provide conclusions and recommendations for protection of EBDA's 60-inch RCP Transport Pipeline.

2.0 REFERENCES

The following references have been used by DCM for this project geotechnical review.

- East Bay Dischargers Authority
 Force Main Between Hayward and Alvarado
 Drawing Nos. 1 through 57
 By: Kennedy Engineers
 Dated: August 8, 1977
- East Bay Dischargers Authority
 Transport Pipeline Force Main Alignment Mapping
 on Google Earth Imagery
 By: EBDA
 undated
- Email and Levee Breach Photographs From: Garrett Allen (CDFW) To: Jackie Zipkin (EBDA) Dated: February 11, 2025
- Emails with Site and Levee Breach Photographs From: Howard Cin (EBDA) To: DCM Dated: March 3, 2025
- USGS Open-File Report 2006-1037 Quaternary Deposits, Central San Francisco Bay Witter, Knudson, et al, 2006

3.0 GEOTECHNICAL CONDITIONS

The levee breach and EBDA Transport Pipeline are located within mapped Bay Mud deposits (see Figure A-3). The upper Bay Mud, referred to as Young Bay Mud is a very recent still water sediment deposited around San Francisco Bay since the last Ice Age (i.e., over the last 10,000 years). The thickness of Young Bay Mud varies from 0 feet around the margins of the Bay to about 100 feet along the east shore of the Peninsula. Young Bay Mud is composed of dark grey silty clay, with thin layers of silt and fine sand and varying amounts of organics and shell fragments. Young Bay Mud is in a normally consolidated state with exceptionally low shear strength and exceptionally high compressibility. Typical Young Bay Mud physical and engineering characteristics are:

- Unified Soil Classification System (USCS) Soil Classification: Fat Clay (CH) and Elastic Silt (MH)
- Dry unit weights: very low at 40 to 65 pcf
- Moisture content: very high approaching 100%
- Plasticity: very high with typical Plasticity Index (PI) of 35 to 50
- Shear Strength: very low with typical undrained shear strengths (Su) of 200 to 400 psf
- Compressibility: very high with typical Compression Index (Cc) of 1.2 to 1.8
- Permeability: very low with typical (k) of 1 x 10⁻⁶ cm/sec to 1 x 10⁻⁹ cm/sec

Given these physical and engineering properties, construction on and within Young Bay Mud is exceptionally challenging, especially earthwork construction such as rebuilding the breached levee. With its very low shear strength and bearing capacity specialized earthwork equipment (e.g., low ground pressure) is required to avoid sinking into and becoming mired in the Bay Mud. With its high clay content and high moisture content, drying out saturated Young Bay Mud for compaction as engineered levee fill is especially difficult and time consuming. With its low shear strength and low permeability rapid filling on Young Bay Mud can produce mud waves when the Young Bay Mud does not have sufficient time to consolidate under load (e.g., the new fill sinks into the Young Bay Mud pushing a mud wave out from the base of fill).

4.0 CONCLUSIONS

- 1. As shown in Figure 2 and Photos 1 through 4 the EBDA Transport Pipeline is not located beneath the subject levee and levee breach. The EBDA Transport Pipeline alignment is parallel to the levee and approximately 40 feet northeast of the levee breach.
- 2. The levee breach is the result of an erosion failure with high surface waters (e.g., King Tides) and storm waves acting on the Bay side of the levee and overtopping the levee (see washed out levee soil deposition on the inland side of the levee in Photo 4).
- 3. There is no imminent danger to the EBDA Transport Pipeline from the levee breach. The EBDA Transport Pipeline at this location has always been under groundwater (and seasonal surface waters) within the wetlands area and is not adversely impacted by additional surface waters from the levee breach or tidal action on those waters.
- 4. Opposite the levee breach location, the depth of cover on the EBDA Transport Pipeline is about 4 to 5 feet (see Figure A-2).
- 5. The soils directly underlying the levee and EBDA Transport Pipeline are most likely Young Bay Mud (see Figure A-3) with very low shear strength and very low permeability. These low strength soils are very sensitive to loading and earthwork construction, specifically fill placement and rate of loading. Rapid loading (i.e., rapid levee filling to about 10 feet high) can overstress the Young Bay Mud resulting in

shear failure, fill sinking and creation of a mud wave of displaced Young Bay Mud reaching several tens of feet laterally.

Generation of a mud wave during levee reconstruction can impose lateral loading on the EBDA Transport Pipeline causing opening of segmented 60-inch RCP pipe joints.

- 6. Heavy earthwork construction equipment crossing over the EBDA Transport Pipeline within Young Bay Mud with only 4 to 5 feet of cover (i.e., within the existing wetlands) can punch through the Young Bay Mud causing mud waves or point loading on the 60-inch RCP pipeline.
- 7. The existing levee system within Eden Landing Ecological Reserve may not be wide enough or strong enough for heavy earthwork construction equipment and import fill transfer trucks to access the levee breach (see Photos 1 and 2). If the levee breach is accessed from the north there is approximately 2,300 feet of existing levee to traverse that closely parallels the EBDA 60-inch Transport Pipeline (see Figures A-4 and A-5). Given the close parallel proximity of this levee to the EBDA Transport Pipeline, levee stability during construction access is critical. Failure of this levee could adversely impact the EBDA Transport Pipeline by levee and Young Bay Mud displacement or mud wave generation.

Also, the EBDA 60-inch Transport Pipeline will be crossed at existing levees such as at the San Francisco Bay Trail levee (see Figures A-5 and A-6). Planned EBDA Transport Pipeline crossings at existing levees need to be evaluated on a case-by-case basis as a function of levee condition, specific construction equipment to be used and depth of cover on the EBDA Transport Pipeline.

8. The very real concern for protection of the EBDA Transport Pipeline is construction activity by CDFW in accessing and reconstructing the levee breach. The following recommendations contain constraints on construction means and methods and recommendations intended to protect the EBDA Transport Pipeline during CDFW's levee reconstruction earthwork activities.

5.0 RECOMMENDATIONS

- 1. EBDA should be given the opportunity to review the CDFW work plan for reconstructing the levee breach including:
 - a. geotechnical investigation and geotechnical engineering recommendations for levee reconstruction;
 - b. earthwork construction equipment access route(s) crossing the Transport Pipeline;
 - c. earthwork construction equipment (make, model and weight) and import fill transfer trucks (make, model and weight) to be used;
 - d. proposed earthwork levee reconstruction plan including subgrade preparation, rate of filling limitations and compaction standards and methods; and
 - e. geotechnical instrumentation plan (e.g., access route levee stability monitoring, breached levee stability monitoring during filling and settlement monitoring plan, etc.).

2. Existing levees, and specifically the continuation of the levee north and south of the levee breach (see Figure 2 and Photos 1 and 2) and the parallel levee directly northeast of the EBDA Transport Pipeline alignment (see Figure 2 and Photo 3) may not be wide enough or strong enough to support earthwork construction equipment. CDFW will need to evaluate existing levee stability with respect to earthwork equipment traffic loading to ensure that the levees can safely support the planned construction equipment.

Levee failure during construction equipment access (e.g., on the existing levee north and south of the levee breach and on the existing levee directly northeast of the EBDA Transport Pipeline alignment) will likely generate a mud wave that could adversely impact EBDA's Transport Pipeline.

3. Existing levees within Eden Landing Ecological Reserve to be used for construction equipment access, for example from the north public parking area at the end of Eden Landing Road (see Figure A-4) and specifically approximately 2,300 feet of existing levee from San Francisco Bay Trail to the EBDA Access Manhole at Station 150+10 that closely parallels the EBDA Transport Pipeline (see Figure A-5) need to be carefully evaluated by CDFW for levee stability with respect to planned construction equipment traffic loading.

Levee failure during construction equipment access (e.g., on the 2,300-foot stretch of existing levee from the San Francisco Bay Trail to EBDA Access Manhole at Station 150+10) would likely generate levee and Young Bay Mud displacement and a mud wave that could adversely impact the EBDA Transport Pipeline.

4. The EBDA Transport Pipeline alignment parallel to the levee failure and between EBDA Access Manholes at Station 150+10 and Station 173+67 (approximately 2,300 feet) should be field marked with signage on all levee access routes crossing the Transport Pipeline, within wetlands, square to the levee breach, and at no more than 250-foot spacings within wetlands. Signage to advise Contractors of the presence of EBDA's 60-inch RCP Transport Pipeline Force Main, directing Contractors to protect the EBDA Transport Pipeline during construction and to only cross the EBDA Transport Pipeline at designated locations.

If the construction access route is from the north parking area at the end of Eden Landing Road, similar signage should be placed along the 2,300-foot stretch of levee closely paralleling the EBDA Transport Pipeline (see Figure A-5).

- 5. Where earthwork construction equipment must pass over the EBDA Transport Pipeline, designated crossing locations at existing levees should be determined (crossings should not be allowed in wetlands areas). Designated crossing locations should include crane mats or steel plates or other suitable bridging materials placed to spread out live wheel or track loading and minimize the risk of equipment loads causing levee failure or equipment sinking into the levee and Young Bay Mud. The maximum depth of any fills placed on existing levees at designated EBDA Transport Pipeline crossing locations should be limited to one (1) foot.
- 6. Staging of construction materials (e.g., import fill) or construction equipment should not be allowed anywhere within EBDA's 40-foot-wide right-of-way.

- 7. All EBDA Transport Pipeline designated crossing locations should be monitored for settlements and displacements. All crossings must be maintained with a smooth surface (i.e., no bumps causing impact loading on the underlying Transport Pipeline).
- 8. During reconstructing the approximate 10-foot-high levee, the fill surface should be continuously monitored and surveyed for signs of rapid settlement and potential mud wave generation. The CDFW work plan should include contingency measures for the protection of the EBDA 60-inch RCP Transport Pipeline if excessive fill settlement and mud wave generation occur.

Let me know if you have any questions about these conclusions and recommendations.



David C. Mathy C.E. 28082 G.E. 569



Attachments: Figures A-1 through A-6

Eden Landing Ecological Reserve Levee Breach March 28, 2025 Page 10



Figure A-1 – Location of levee breach as provided by CDFW in 2/11/25 email to EBDA (Ref. 3).

The EBDA Access Manhole noted is at EBDA Station 150+10 (see Figure A-2). The levee breach is approximately 300 feet south of the EBDA Access Manhole.



Levee breach at EBDA Station ~153+10

Figure A-2 – Excerpt from 1977 EBDA Transport Pipeline Force Main Plan and Profile The Access Manhole shown in Figure 2 is at Station 150+10. North to left.

Levee Breach is approx. 300 feet south of Access Manhole, at approx. EBDA Station 153+10.

Note that the berm shown around Station 152+00 to 154+00 in the 1977 drawings is no longer present. The depth of cover on the EBDA 60-inch RCP Transport Pipeline Force Main at Station 153 +10 is approximately 4 to 5 feet.



Figure A-3 – USGS Open-File Report 2006-1037 Quartenary Deposits, Central San Francisco Bay Witter, Knudson, et al, 2006

Qhbm = San Francisco Bay Mud

The area of the levee breach is within mapped Bay Mud deposits.



Figure A-4 – EBDA Transport Pipeline alignment mapping. Note levee access to the levee breach from Eden Landing Road to the north crosses the EBDA Transport Pipeline at the San Francisco Bay Trail and closely parallels the EBDA Transport pipeline on an existing levee for a distance of about 2,300 feet (see Figure A-5).

File No. 437

San Francisco Bay Trail crossing over the EBDA 60-inch Transport Pipeline

San Francisco Bav Trail



Access Manhole Station 150+10

Figure A-5 – EBDA 60-inch Transport Pipeline alignment adjacent and parallel to the existing levee between the San Francisco Bay Trail and EBDA Access Manhole at Station 150+10. See Figure A-6 for profile of San Francisco Bay Trail crossing.

The adjacent and parallel distance is about 2,300 feet along an existing levee. If used for construction access to the levee breach this existing levee must be evaluated for stability with respect to the size and weight of construction equipment. Failure of this levee during construction access could impact the EBDA 60-inch Transport Pipeline.



Figure A-6 - Excerpt from 1977 EBDA Transport Pipeline Force Main Plan and Profile Pipeline crossing under the San Francisco Bay Trail at Station 126+00, approximately 1,700 feet east of Eden Landing Road parking lot.

Depth of cover under the Bay Trail is approximately 7 feet.

Note, the levee adjacent and parallel to the EBDA Transport Pipeline shown in Figure A-5 was not present in 1977.



A Joint Powers Public Agency

<u>ITEM NO. 14</u>

REGULATORY AFFAIRS COMMITTEE AGENDA

Tuesday, April 15, 2025

9:00 A.M.

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

Committee Members: Johnson (Chair); Young

- RA1. Call to Order
- RA2. Roll Call
- RA3. Public Forum
- RA4. EBDA NPDES Compliance See Item No. OM4 (The Committee will review NPDES Permit compliance data.)
- **RA5.** Nutrients Group Annual Report and Science Update (The Committee will discuss recent reports related to nutrients in the Bay.)
- RA6. SFPUC Supreme Court Decision (The Committee will receive an overview of the recent Clean Water Act case and implications for EBDA.)
- **RA7. BACWA Key Regulatory Issues Summary** (The Committee will review BACWA's issues summary.)

RA8. Adjournment

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

Agenda Explanation East Bay Dischargers Authority Regulatory Affairs Committee April 15, 2025

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 Administration Manager at (510) 278-5910 or juanita@ebda.org. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.

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

Next Scheduled Regulatory Affairs Committee Meeting Tuesday, June 17, 2025 at 9:00 a.m.

ITEM NO. <u>RA5</u> NUTRIENTS GROUP ANNUAL REPORT AND SCIENCE UPDATE

Recommendation

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

Strategic Plan Linkage

- 1. **Regulatory Compliance:** Proactively meet or exceed regulatory requirements for protection of the environment and public health.
 - a. Represent EBDA and the Member Agencies' interests by preemptively engaging in development of emerging regulations and permits and advocating for reasonable, science-based decisions.
 - b. Maintain consistent compliance with EBDA's National Pollutant Discharge Elimination System (NPDES) Permit.
- 7. **External Collaboration:** Collaborate with external stakeholders to build strong relationships for joint problem-solving and to expand EBDA's and its Member Agencies' reach.
 - a. Provide industry leadership through active engagement with wastewater associations including Bay Area Clean Water Agencies (BACWA), California Association of Sanitation Agencies (CASA), California Water Environment Association (CWEA), and Water Environment Federation (WEF).
 - b. Partner with regulators to develop and implement permits and programs leading with science and lessons learned.

Background

While the loads of nutrients such as nitrogen and phosphorus to San Francisco Bay are higher than those of other estuaries, the Bay has historically been very resilient, and negative impacts of nutrient enrichment such as eutrophication have not occurred. Scientists believe this resilience to stem at least in part from high turbidity (i.e., the Bay is cloudy); which blocks the light that phytoplankton need to grow; presence of filterfeeding clams, which reduce phytoplankton concentrations; and strong tidal mixing, which reduces nutrient concentrations. Over the last decade, concerning trends caused the scientific and regulatory communities to question whether the Bay's resilience is weakening.

To begin to proactively address these nutrient-related risks, Bay Area wastewater agencies, through the Bay Area Clean Water Agencies (BACWA), have participated since 2012 in a positive collaboration with a wide variety of stakeholders to implement a Nutrient Management Strategy that focuses on conducting scientific research and modeling to determine the effects of nutrients on the Bay ecosystem, and protective levels of nutrient loading going forward. BACWA worked closely with the San Francisco Bay Regional Water Quality Control Board (Water Board) staff to negotiate a Watershed

Permit for nutrients, which was issued in 2014 and reissued in 2019.

In Summer 2022, a harmful algae bloom caused unprecedented decreases in dissolved oxygen in the Bay, resulting in significant fish kills. While it is unclear exactly what triggered this bloom, its timing did correspond with a prolonged period of unusually clear skies in the Bay Area, making available more light than usual for photosynthesis. Scientists believe the bloom was nitrogen limited, meaning that nitrogen loads to the Bay sustained the bloom and likely contributed to its extent and duration. This conclusion, along with the increased media attention garnered by the event, has led to public and political pressure on wastewater agencies and regulators, particularly the Water Board, to act quickly to reduce nutrient loads to the Bay, with a goal of preventing or lessening the impact of future blooms. A brief, and thankfully less consequential, recurrence of the bloom in 2023 amplified that pressure.

EBDA and our partners with BACWA negotiated the <u>third Watershed Permit</u> for nutrients, which was adopted on July 10, 2024 and became effective on October 1, 2024. The permit relies on modeling to set a Bay-wide target of a 40% reduction in nitrogen loads in ten years. Reductions are then allocated to individual dischargers in the form of effluent limits that would be enforceable in 2035.

The Water Board expressed support for continuing to refine the underlying science and allowing additional time for multi-benefit projects such as water recycling and nature-based solutions. While the permit does not expressly allow for more time to complete these projects, it states that the Water Board will "consider available regulatory mechanisms to provide more time to comply." A new section was also added to the permit at EBDA's request, recognizing early actors that have already completed or begun construction or implementation of projects to reduce total inorganic nitrogen discharges to San Francisco Bay. For these dischargers, the permit contains the same language regarding the Water Board considering available regulatory mechanisms to provide more time to comply.

In conjunction with adopting the permit, the Regional Water Board also adopted a <u>Resolution</u> directing staff to:

- a) evaluate the feasibility of amending the Compliance Schedule Policy to provide more time for multi-benefit projects or innovative technologies;
- b) compare the pros, cons, and timelines needed to pursue other available regulator mechanisms to provide more time, as warranted, particularly for multibenefit projects; and
- c) report to the Board on its findings.

Discussion

Group Annual Report

As it has every year since 2014, on April 1, 2025, BACWA submitted its Group Annual Report under the Nutrients Watershed Permit. The Report, prepared by consultant HDR, summarizes the nitrogen and phosphorus concentrations and loads from the forty
wastewater treatment plants that discharge to San Francisco Bay.

While EBDA's Member Agencies are also required to monitor for nutrients, the data contained in this report is only for the combined effluent discharged through EBDA's common outfall. EBDA's influent values are the sums of contributing plants' influent numbers.

The full report can be found at the following link: <u>https://bacwa.org/document/bacwa-group-annual-report-for-nutrients-2025-04-01/</u>

The table below summarizes dry season discharges and indicates current trends for the Bay as a whole. The Watershed Permit limits are for total inorganic nitrogen (TIN), which as shown in the table, is already trending down. EBDA's TIN loading shows no trend. However, it should be noted that as of a few years ago, EBDA's trend was slightly upward, likely as a result of population growth. The fact that TIN load has reverted back to flat is likely thanks to nutrient optimization at the EBDA plants, and the trend will move downward over time, as plant upgrades are commissioned.

Constituent	2013 ^(a)	2014 ^(a)	2015 ^(a)	2016 ^(a)	2017 ^(a)	2018 ^(a)	2019 ^(a)	2020 ^(a)	2021 ^(a)	2022 ^(a)	2023 ^(a)	2024 ^(a)	Trend (b, c)	12-Year Average
Flow, mgd	393	374	351	372	396	383	393	363	339	337	381	388	None	373
Ammonia, mg N/L	22.8	25.6	27.3	26.5	26.0	26.8	25.6	25.8	26.2	28.1	22.5	22.0	None	25.7
NOx, mg N/L	8.98	8.36	9.41	7.89	7.81	7.56	7.26	7.28	7.25	6.69	7.40	7.65	Down (-2.0%/yr)	7.81
TIN, mg N/L ^(b)	31.8	34.0	36.7	34.4	33.8	34.4	33.0	33.2	33.6	34.8	30.0	29.7	Down (-0.7%/yr)	33.6
TP, mg P/L	2.28	2.34	2.69	2.81	2.44	2.76	2.69	2.76	2.87	2.58	2.60	2.49	Up (0.8%/vr)	2.62

Table 9-8. Discharge: Summary of Dry Season Flow and Concentrations to the Bay*

** Dry season trending not applied to concentrations as the emphasis is on load. Focusing on concentration is limiting as it does not consider the impact of flow. a. The dry season represents May 1 through September 30 for each calendar year.

b. The TIN values do not necessarily equal ammonia plus NOx due to instances when ammonia was sampled more frequently than NOx.

The graph below shows EBDA's dry season TIN in relation to other dischargers to the South Bay.

Agenda Explanation East Bay Dischargers Authority Regulatory Affairs Committee April 15, 2025



For the first time this year, the permit required BACWA to report on the status of each agency's planning toward meeting the dry season TIN final effluent limits. By April 1, 2025, the permit requires agencies to identify preliminary alternatives for meeting final effluent limits. Early Actors are expected to provide an annual status update on their projects. This first regional Compliance Milestone Summary Report was included as Appendix B to the Group Annual Report and is attached for the Committee's information.

As highlighted in column E of Table 1 in the report, many agencies, including EBDA, are either unsure that they will be able to meet final limits in 2034 or expect not to be able to. This speaks to the need for additional time for compliance. As noted in the Background, the Water Board acknowledged at the time of permit adoption that a regulatory fix would be needed to allow Bay Area wastewater agencies additional time to comply. Senior Water Board staff informed BACWA last month that they are pursuing an amendment to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) that will override the ten-year limitation in the state's Compliance Schedule Policy and will provide flexibility to grant longer compliance schedules in future iterations of the permit. Staff will be working closely with the Water Board and our BACWA colleagues to ensure that the Basin Plan Amendment language is broad enough to cover Early Actors including EBDA.

Science Program Update

The Nutrient Management Strategy science program, led by the San Francisco Estuary Institute (SFEI) provides the technical underpinning for regulatory actions on nutrients in the Bay. Work that the science program has conducted to date is summarized in the attached report, *Science to Inform Management*. Hard copies of this report will be available for Member Agencies' use in the next few months.

BACWA is currently working with the Water Board and other stakeholders to develop a science plan for the next five years. Work that can be accomplished is highly dependent on the availability of federal funding that had previously been allocated through the Environmental Protection Agency (EPA), so the team is working on several versions of the plan representing different funding scenarios. The final five-year plan is expected to be approved by the Nutrient Management Strategy Steering Committee in June.



Bay Area Clean Water Agencies

Appendix B Compliance Milestone Summary Report

2024

April 1, 2025







Contents

4	Next Steps Error! Bookmark not defin	1ed.
	3.2 Others	33
	3.1 Groups 1, 2, and 3	11
3	Detailed Responses	11
2	Overview of Results	5
1	Introduction	1

Tables

Table 1. Summary of Questionnaire Results (Color Coded by Grouping; White = Early Actor, Light Grey = Compliance Pathway Identified; Dark Grey = Compliance Alternatives Identified)	9
Table 2. Detailed Responses Provided by Dischargers (Sorted Alphabetically); White = Early Actor, Light Grey = Compliance Pathway Identified; Dark Grey = Compliance Alternatives Identified.	11

Figures

Figure 1. Compliance Questionnaire Provided to Dischargers	3
Figure 2. Distribution of Compliance Pathway Results by Grouping for all the Bay Area Treatment	_
Plants (Top = Count by Grouping; Bottom = ADWF Permitted Capacity by Grouping)	5
Figure 3. Distribution of Nutrient Reduction Strategies among Dischargers	6
Figure 4. TIN Reduction Potential based on the Compiled Request for Information Results *,**	8





1 Introduction

The Nutrient Watershed Permit (Permit) adopted by the Regional Water Board in July 2024 (Order R2-2024-0013) establishes final effluent limitations for Total Inorganic Nitrogen (TIN) for specific municipal wastewater dischargers to San Francisco Bay. The dischargers with final effluent limitations are listed in Table 4 of the Permit. The Permit also establishes a 10-year compliance schedule, such that the final effluent limitations do not go into effect until October 1, 2034. Dischargers are required to submit information annually to demonstrate that they are making progress per the Permit's compliance schedule, with specific milestones listed in Table 5 of the Permit. This document summarizes that annual progress, as required by Provision 6.3.3 of the Permit.

BACWA collected the information in this report via an online questionnaire. A flow diagram illustrating the questions asked of Dischargers is shown in Figure 1. Multiple response pathways are available to Dischargers depending on their status. Dischargers may have a portfolio of strategies to meet final effluent limits for TIN, and some dischargers that already comply with the final effluent limits are pursuing additional nitrogen removal opportunities.

In alignment with the text of Provision 6.3.3, Dischargers were placed into three groups based on their response.

- 1. Early Actors
- 2. Compliance Pathway Identified
- 3. Compliance Alternatives Identified







Figure 1. Compliance Questionnaire Provided to Dischargers

FX





2 Overview of Results

The distribution of the Dischargers among Groups 1, 2, and 3 is presented in Figure 2. The upper plot provides the number of Dischargers in each category, while the lower plot presents the Average Dry Weather Flow (ADWF) associated with the Dischargers in each group. Early Actors make up 55 percent of the listed Dischargers, while Groups 2 and 3 make up 17 percent and 28 percent, respectively. Collectively, the Early Actors represent 80 percent of the 798 mgd ADWF permitted capacity associated with the listed Dischargers, while Groups 2 and 3 represent 8 percent and 13 percent, respectively.







The Dischargers also provided information on the types of compliance alternatives that are under consideration or have been completed. The compliance alternatives identified in the Permit are as follows:

- Nature-based Solution (NbS)
- Traditional Treatment Infrastructure (TTI)
- Optimization (OP)
- Recycled Water (RW)
- Nutrient Trading (NT)

Figure 3 presents the distribution of compliance alternatives among Groups 1, 2, and 3 based on the information provided by the Dischargers. Figure 3 shows a total of 64 projects for the 29 Dischargers listed in Table 1 as several Dischargers, including Early Actors, are pursuing multiple alternatives. Traditional treatment infrastructure represents the most common method of compliance, followed by optimization and recycled water. Nature-based solutions and nutrient trading are the least common. Based on these results, nature-based solutions are most common among Early Actors and have not been selected by any Discharger in Group 3 as a preliminary compliance alternative. This is likely because Nature-based Solutions are generally not feasible as a single solution and may be less attractive to Dischargers still in the initial phases of developing a compliance pathway.







Figure 4 presents a projection of load reductions that are anticipated due to projects currently underway by Early Actors (that are expected to result in compliance) and by agencies that have already identified a Compliance Pathway. Figure 4 includes the estimated 2024 dry season discharge load (43,700 kg N/d), the maximum historical load (55,000 kg N/d), the anticipated load accounting for in-progress and planned projects that are expected to result in compliance, and the Baywide TIN Load Limit in the 2024 Permit (26,700 kg N/d). The middle column in Figure 4 accounts for anticipated load reductions from two groups that represent a significant portion of the total TIN load: 1) Early Actors that anticipate meeting final effluent limits (i.e., "Yes" in Column E of Table 1) and 2) agencies that have already identified a compliance pathway (i.e., "2" in Column C of Table 1). There is no timeline associated with these load reductions. These Dischargers are assumed to discharge their final effluent limit as given in the 2024 Permit. All other agencies were conservatively assumed to discharge their 2024 dry season TIN discharge load. Figure 4 illustrates the planned TIN load reduction associated with in-progress and planned projects that are expected to result in final permit compliance. This approach does not account for the effects of population growth on TIN loads.

This approach suggests that in-progress or completed projects resulting in compliance and Dischargers that have identified a compliance pathway may provide an 18 percent reduction in TIN discharge load compared to the 2024 dry season TIN discharge loads. An additional 21 percent (approximately 9,100 kg N/d) reduction compared to the 2024 dry season TIN discharge load would be required to meet the Baywide final permit TIN limit of 26,700 kg N/d. Figure 4 illustrates that while significant progress has been made, several large Dischargers are unsure of compliance and/or know they will need more time.

Some Early Actors do not expect to achieve compliance with the 2024 Permit final effluent limits (Table 4 in R2-2024-0013) within the Compliance Schedule because their projects were designed based on targets in the 2019 Nutrients Watershed Permit (R2-2019-0017). These dischargers will need additional time to implement additional projects following completion of their early action projects. Further, some Early Actors are unsure whether their projects will result in compliance until they are commissioned and begin operation.

The information provided by the Dischargers is summarized in Table 1.



Figure 4. TIN Reduction Potential based on the Compiled Request for Information Results *,**

- * The middle column uses the 2024 Permit TIN load limit values for Early Actors that anticipate meeting final effluent limits (i.e., "Yes" in Column E of Table 1) and agencies that have already identified a compliance pathway (i.e., "2" in Column C of Table 1). The values for agencies that have identified compliance alternative(s) used their respective 2024 dry season values (i.e., "3" in Column C of Table 1) as their anticipated values are unclear at this time.
- ** The total values might vary from the sum of the listed values by plant due to rounding.

F75



Table 1. Summary of Questionnaire Results (Color Coded by Grouping; White = Early Actor, Light Grey = Compliance Pathway Identified; Dark Grey = Compliance Alternatives Identified)

A. Discharger ^a	B. ADWF	C.	D. Early	E. Will Meet	F. Projects	G. Anticipated	H. P	H. Prelim. Alternatives Include ^c		ives Include ^c I. Interested		I. Interested	J. Schedule Summary for Projects
	Capacity (mgd)	Group⁵	Actor	Final Effluent Limit	Completed or In-Progress	Compliance Pathway	NbS ^d	TTId	OP ^d	RW ^d	NT ^d	IN Purchasing Credits	
American Canyon, City of	2.5	1	Yes	Yes	RW; TTI	-	-	-	-	-	-	-	Complete
Benicia, City of	4.5	3	No	-	-	-	Yes	Yes	Yes	Yes	Yes	Maybe	TBD
Burlingame, City of	5.5	3	No	-	-	-	No	Yes	Yes	Yes	No	-	TBD
Central Contra Costa Sanitary District	53.8	3	No	-	-	-	Yes	Yes	No	Yes	Yes	Maybe	TBD
Central Marin Sanitation Agency	10	2	No	-	-	TTI; OP	-	-	-	-	-	-	Alternative to be selected in 2025
City of Richmond Municipal SD	16	1	Yes	Yes	TTI	-	-	-	-	-	-	-	TBD
Delta Diablo	19.5	2	No	-	-	TTI; NT	-	-	-	-	-	-	Construction to begin in 2026
EBDA (DSRSD, City of Hayward, City of Livermore, Oro Loma SD, City of San Leandro, Union SD)	107.8	1	Yes	Unsure	NbS; TTI; OP; RW	-	-	-	-	-	-	Maybe	DSRSD: Complete. Hayward: 2030. Livermore: RW complete, treatment evaluation is underway. Oro Loma SD: Complete. San Leandro: 2026. Union SD: Phases in 2027, 2029, 2031.
EBMUD	120	1	Yes	Unsure	OP	-	-	-	-	-	-	-	TBD
Fairfield Suisun SD	23.7	1	Yes	Yes	TTI; OP	-	-	-	-	-	-	-	2033
Millbrae, City of	3	2	No	-	-	RW, NT	-	-	-	-	-	-	Pre-design activities in 2025
Mt. View SD	3.2	1	Yes	Yes	TTI, NbS		-	-	-	-	-	-	Complete, but pursuing additional alternatives with schedule TBD.
Novato SD	7	1	Yes	Unsure	TTI; RW	-	-	-	-	-	-	-	Complete
Palo Alto, City of	39	1	Yes	Yes	TTI	-	-	-	-	-	-	-	2028
Pinole, City of	4.06	1	Yes	Yes	TTI	-	-	-	-	-	-	-	TBD. Study underway.
Rodeo SD	1.14	3	No	-	-	-	Yes	No	Yes	No	Yes	Yes	TBD
San Jose/Santa Clara WPCP	167	1	Yes	No	TTI; OP; RW	-	No	Yes	Yes	Yes	No		See individual response
San Mateo, City of	15.7	1	Yes	Yes	TTI	-	-	-	-	-	-	-	2025
Sausalito-Marin City SD	1.8	3	No	-	-	-	No	Yes	Yes	Yes	Yes	Maybe	TBD
SD N. 5 of Marin County (Tiburon)	0.98	3	No	-	-	-	-	Yes	-	-	-	Yes	TBD
Sewerage Agency of Southern Marin	3.6	3	No	-	-	-	Yes	No	No	Yes	Yes	Maybe	TBD
SFO Airport	2.2	1	Yes	Yes	TTI; RW	-	-	-	-	-	-	-	TBD. 50 percent design for current phase in 2025.
SFPUC Southeast	85.4	1	Yes	Yes	-	ТТІ	-	-	-	-	-	-	TBD. Design-build contractor to be selected 2025.
SFPUC Treasure Island	2.0	1	Yes	Yes	TTI; RW	-	-	-	-	-	-	-	2026
Silicon Valley Clean Water	29	3	No	-	-	-	-	Yes	Yes	Yes	-	-	TBD. Evaluating 4 alternatives.
South San Francisco and San Bruno	13	2	No	-	-	TTI	-	-	-	-	-	-	TBD. Evaluating process modification alternatives in 2025.
Sunnyvale, City of	29.5	1	Yes	Yes	TTI	-	-	-	-	-	I	-	2028
Vallejo Flood and Wastewater District	15.5	2	No	-	-	TTI; NT	-	-	-	-	Yes	-	TBD. Evaluating process alternatives in more detail in 2025 and 2026.
West County Wastewater District	12.5	1	Yes	Yes	TTI; OP; RW	-	-	-	-	-	-	-	Complete
 a. Dischargers not included here due to Community Services District (Port Cost) b. Group 1 consists of Early Actors; Group 1 	dry season d sta Wastewa up 2 consists	lischarge pi ter Treatme of other D	rohibitions: So ent Facility) and ischargers that	noma Valley Co d Sanitary Distric t have identified	unty Sanitation D ct Number 5 of M a compliance pat	istrict, Napa Sanita arin County (Parao hway; Group 3 co	ation Dist dise Cove nsists of o	rict, City o Treatme other Disc	of Petalur ent Plant) chargers	ma, and L (see Sec that have	as Gallir tion 0). identifie	nas Valley Sanit ed preliminary al	ary District. Other Dischargers not included here: Crockett ternatives.

c. In addition to projects listed under columns F and G.

d. NbS = Nature-based Solutions, TTI = Traditional Treatment Infrastructure; OP = Optimization; RW = Recycled Water, and NT = Nutrient Trading.

FS

FX





3 Detailed Responses

Detailed responses provided by the Dischargers are provided below.

3.1 Groups 1, 2, and 3

The detailed responses provided by Group 1 (Early Actors), Group 2 (Compliance Pathway Identified), and Group 3 (Compliance Alternatives Identified) Dischargers are provided in Table 2. Groups 1, 2, and 3 provide an ADWF permitted capacity of 637.56, 61, and 100.32 mgd, respectively.

Table 2. Detailed Responses Provided by Dischargers (Sorted Alphabetically); White = Early Actor, Light Grey = Compliance Pathway Identified; Dark Grey = Compliance Alternatives Identified.

Group	Discharger	Detailed Response
1	American Canyon, City of	The City of American Canyon built a membrane bioreactor (MBR) plant that nitrifies and denitrifies. The City also has a robust recycled water program that will divert loads to irrigation.
3	Benicia, City of	BACWA worked with SFEI to develop a report of potential NbS for nutrient removal. The alternatives determined for Benicia include one potential site for open water wetlands to be utilized, and five potential sites where horizontal levees may be able to be used. Benicia will work with a consulting engineer to determine feasibility.
		From the 2018 HDR report we believe there are two potentially feasible upgrade projects. One to convert the gravity thickener or rotating biological contactors (RBC's) to treat belt filter press sidestream flows via Deammonification, considered an upgrade given the magnitude of the modifications needed. Second, to demolish existing RBC trains, add 2 aeration basins (1.07 MG) as MLE, retrofit existing aeration basins to MLE, add new aeration blowers, construct 1 new 75-ft diameter secondary clarifier, possibly construct caustic soda addition facilities, while maintaining ability to operate in contact stabilization mode for peak wet weather flows. Benicia will work with a consulting engineer to further assess and develop these two projects.
		Benicia will investigate feasibility of operating the plant to fully nitrify during dry season months without adversely impacting disinfection or other plant processes and final effluent compliance. Depending on the results may then investigate the feasibility of minor aeration system and tankage modifications to attain partial denitrification.
		There are 2 potential recycled water alternatives that may be considered. Benicia worked with Brown and Calwell to produce a feasibility report for a water reuse project to supply up to 2 MGD of



Group Discharger	Detailed Response
	recycled water to a local refiner for use. Benicia also worked with Stantec Consulting Services Inc. on a Wastewater master plan update and major facility condition assessment. In this report a draft action plan is presented for a potential indirect potable reuse project. Benicia will work with a consulting engineer to determine feasibility.
	and, based on the outcome, determine whether participation makes sense for Benicia.
	The City of Benicia is in the process of engaging a consulting engineer to review, assess and update previously identified potential nutrient removal alternatives. Based on those results, expected later in 2025, Benicia will refine its recommended pathway(s) towards compliance with final limits. More detailed planning, environmental studies, and design will follow beginning in 2026 to develop and implement future project(s) to ensure compliance.
3 Burlingame, City of	The preliminary compliance approaches may include traditional wastewater treatment infrastructure upgrades, optimization, recycled water, nature-based solutions, or a combination thereof. Due to space limitations at the WWTF, NbS are currently not a feasible approach and therefore will not be considered any further. However, optimization, wastewater treatment infrastructure upgrades, and recycled water approaches will be considered for further alternatives analysis. Non-Potable Reuse consists of modifying the WWTF to produce Title 22 water that would be diverted from San Francisco Bay. Anticipated improvements would include providing effluent filtration, additional disinfection, and potentially secondary process enhancements to improve filterability. Indirect or Direct Potable Reuse consists of modifying the WWTF and implementing a potable reuse project. Improvements to the secondary process may include constructing a membrane bioreactor and implementing advanced treatment including reverse osmosis, disinfection, and nutrient removal from the brine stream. Recycled water approaches alone may not be able to comply with the final TIN limits. Therefore, a combination of WWTF upgrades and recycled water implementation would be considered for evaluation.



Group	Discharger	Detailed Response
		Activated Sludge Intensification. This alternative consists of optimizing the CAS system for nutrient removal and incorporating an intensification technology such as membrane aerated biofilm reactors (MABR) or densification. Intensification technologies will require less overall site area to implement but are not as mature as CAS and may require piloting and additional time for implementation. MABR is an intensification technology where membranes are installed in the anoxic zone of aeration basins. MABRs are efficient at growing nitrifiers and are effective at providing more nitrification nutrient removal capacity compared to CAS. Sludge Densification is an intensification technology that improves the settleability of an activated sludge system. By improving settleability, the activated sludge process can be operated at higher mixed liquor concentrations, resulting in more nutrient removal capacity within the same tankage.
		Reuse or Recycled Water Implementation. Non-Potable Reuse consists of modifying the WWTF to produce Title 22 water that would be diverted from San Francisco Bay. Anticipated improvements would include providing effluent filtration, additional disinfection, and potentially secondary process enhancements to improve filterability. Indirect or Direct Potable Reuse consists of modifying the WWTF and implementing a potable reuse project. Improvements to the secondary process may include constructing a membrane bioreactor and implementing advanced treatment including reverse osmosis, disinfection, and nutrient removal from the brine stream. Recycled water approaches alone may not be able to comply with the final TIN limits. Therefore, a combination of WWTF upgrades and recycled water implementation would be considered for evaluation.
3	Central Contra Costa Sanitary District (Central San)	Central San is considering nature-based solutions, including two potential configurations utilizing existing wet weather equalization basins; potential merger with Mt. View Sanitary District could divert a portion of Central San's flow for nutrient removal treatment; and a horizontal levee in the lower Walnut Creek watershed. Central San is evaluating traditional treatment infrastructure alternatives, which include secondary process conventional expansion with MLE, intensification with membrane aerated biofilm reactors (MABR), and/or densified activated sludge.
		Central San is interested in purchasing or exchanging nutrient credits between facilities/subembayments or through a centralized credit bank. BACWA will explore a potential trading program through the regional



Group	Discharger	Detailed Response
		planning study required under the Third Nutrient Permit.
		Several capital projects have been completed or are in progress at the treatment plant, with future nutrient removal considerations incorporated during the planning and design phases. These projects address key factors such as aging infrastructure and establish a solid foundation for Central San's compliance with nutrient limits. A selection of these projects is listed below:
		Aeration Basins Diffuser Replacement - Phase 1, DP 100019 (In Construction) Diffuser replacement and seismic upgrades to two of the four existing aeration tanks. Upgraded equipment will be essential for nutrient removal.
		Membrane Aerated Biofilm Reactor (MABR) Pilot Project (Completed November 2024) Successfully demonstrated that MABR can remove TIN while being fed continuously with mixed liquor from Central San's treatment plant operating with a short solids retention time (SRT; 1.2- to 1.3-day SRT). Pilot was fed from various locations in existing treatment plant to identify best location for full-scale testing.
		Secondary Clarifier and Channel Improvements, DP 100047 (In Final Design) Rehabilitate existing clarifiers and distribution channel concrete and coatings. Replace drain gates and other miscellaneous items. Evaluate options for optimizing clarifier performance and hydraulic capacity, while ensuring improvements would remain effective for future nutrients removal operation.
		Ultraviolet (UV) Disinfection Replacement, DP 100012 (In Final Design) The new UV Disinfection facilities will accept secondary effluent from any new secondary treatment facilities and allow the existing UV tank area to be repurposed for secondary treatment.
		Central San has recently selected consultants for the Nutrient Management Project, DP 100078. This project will identify viable nutrient mitigation alternatives to assist Central San in selecting an optimal solution, including a large-scale demonstration project of potential nutrient removal technologies, such as MABR and densification. The project will evaluate various potential recycled water opportunities and nature-based solutions, maximize the value of existing assets, and develop an optimal project phasing, schedule and delivery plan. The overarching goal is to comply with regulatory requirements on schedule,



Group	Discharger	Detailed Response
		while minimizing impact on Central San's ratepayers and integrating nutrient removal with multi-benefit projects.
2	Central Marin Sanitation Agency (CMSA)	As of February 2025, there are multiple alternatives being considered with a focus on traditional treatment infrastructure. Applicable technologies currently being considered include conventional nutrient removal (MLE and Bardenpho), intensified nutrient removal (MABR, DAS), post-secondary treatment, and side stream treatment. In addition to new traditional treatment infrastructure, the existing infrastructure will also be optimized to remove additional nutrients. The combined nutrient removal from the new traditional and optimized existing infrastructure will be enough to meet the permit limits. A final alternative will be selected by the fall of 2025, after which CMSA will begin pre-design of the selected alternative immediately. Final
		design and construction will follow.
1	City of Richmond Municipal SD	Project #1: aeration basins were converted from mechanical mixing & aeration to a diffused air aeration system. This system was put fully online in December of 2023, resulting in a decrease by about half of the sites nutrient loading to the Bay.
		Project #2 (Proposed): with the addition of three new screw presses for a thickening system, we have a proposed sidestream treatment project for nutrient reduction.
2	Delta Diablo (DD)	DD has selected biological nutrient removal technologies to achieve compliance with regulatory limits. Construction of five 1.5-million-gallon activated sludge tanks, or a combination of four new tanks with retrofits to existing tankage, will provide nutrient removal with the flexibility to operate in MLE plug flow and step-feed biological nutrient removal configurations. The systems will be designed with additional flexibility to accommodate intensification alternatives in the future, such as densification or membrane aerated biofilm reactor technologies. As of January 2025, the design for Phase 1 has reached the 30 percent milestone. The project is expected to go out to bid in late 2025, with construction anticipated to begin in 2026.



Group	Discharger	Detailed Response
1	East Bay Dischargers Authority (EBDA)	EBDA is a combined outfall system that discharges effluent for six treatment plants. The status of each plant's nutrient reduction efforts is summarized below. Because several of the major upgrades described herein were designed prior to development of the effluent limits in the current permit, EBDA anticipates that additional time will be needed to achieve compliance, consistent with permit provision 6.3.6. As outlined below, the EBDA agencies are already working to identify additional projects.
		Dublin San Ramon Services District In 1995, DSRSD and East Bay Municipal Utility District (EBMUD) formed a partnership called the DSRSD-EBMUD Recycled Water Authority (DERWA) to produce recycled water from DSRSD's wastewater treatment plant. The DERWA Program treats secondary effluent from the DSRSD Regional Wastewater Treatment Plant to produce disinfected tertiary recycled water suitable for irrigation and other approved uses, thereby diverting secondary effluent from discharging via the EBDA system into San Francisco Bay. The first deliveries of recycled water began in 2006 and have steadily grown ever since. DERWA recycled 1,569 million gallons in 2024, thereby reducing the percentage of effluent discharged into San Francisco Bay by 36 percent. During the dry months of May through September in 2024, DERWA recycled 1,199 gallons, reducing effluent flows and loads by 72 percent.
		Oro Loma Sanitary District Plant upgrades that resulted in nitrogen load reduction were completed in year 2019. The project involved the addition of additional activated sludge tankage, as well as modification of existing tankage to facilitate nitrogen removal. The new tankage and modified tankage offers the ability to operate in a continuous or step-feed aerobic-anoxic configuration.
		City of Hayward The City is currently at 90 percent design for nutrient upgrades, and construction is tentatively scheduled to begin in the Spring of 2026. Construction is anticipated to be completed in July 2030. This project will include: a. Installation of a new pair of 1.5-million-gallon equalization/diurnal flow basins (3-million gallons total storage) to free up the site where the new biological nutrient removal (BNR) basins are going to be installed. b. Installation of 5-1-million-gallon basins to operate with Anoxic selectors and a step feed BNR process. This will include constructing anoxic and aeration zones with surface wasting operations. A new blower building and an alkalinity control facility will also be constructed as well as a new return activated sludge (RAS) chlorination injection



Group	Discharger	Detailed Response
		system for foaming control.
		c. Installation of 1 new secondary clarifier with return-activated sludge
		pump station.
		d. Retrotitting and upgrading two existing secondary clarifier structures
		and mechanisms.
		required area for a new grit facility in order to allow the new BNR basins
		to operate as efficiently and effectively as possible
		In parallel with this major upgrade, Hayward is also working on the
		following future projects:
		• The City received a \$600,000 grant that will be used to further develop
		a conceptual design (30 percent design) for converting the former
		oxidation ponds into a free water surface wetland with horizontal levee to
		further treat/polish the secondary treated effluent. The City issued the
		RFP for the project in the fourth quarter of 2024 and is currently
		selecting a consultant.
		• The City awarded a contract for consulting services to develop a
		identifying notantial systematics, the systematic plan includes
		evetem quality and quantity to most notantial sustamer demands, and
		expansion goals and opportunities
		City of Livermore
		Since the 1960s, the City has been producing recycled water for
		irrigation. During the last decade on average, the City recycled 1/3 of the
		effluent that could have been discharged to the Bay, with an even higher
		proportion during the dry months covered by the Permit.
		In addition its existing recycled water diversion, the City is considering
		the following nutrient reduction measures:
		• The City will evaluate if MLE or other processes can be accommodated
		by using redundant capacity (basin, blower), and upgrading the pumping
		and Instrumentation. The evaluation will start in April 2025.
		• The City will expand recycled water use in the existing service area to
		accommodate future population growth. The demand increase is
		investigate the possibility of selling additional recycled water to
		neighboring agencies.
		• The City will explore trading options within the EBDA system.
		City of San Leandro
		San Leandro has been working on converting a disused treatment basin
		into a treatment wetland since 2018. This project will include an MABR
		nitrification system followed by distribution to a woodchip and vegetation
		seepage slope and then an open water pond system. The project has



Group	Discharger	Detailed Response
		been awarded grants from Measure AA through the San Francisco Bay
		Restoration Authority and the US EPA through the San Francisco Bay
		Water Quality Improvement Fund.
		The project will require stabilization of the material in the pond. In late
		2024, a pliot test was performed to test the quantity of cement necessary
		2025 and commence rough grading in late summer 2025. The remainder
		of the project is anticipated for construction in 2026.
		The project will treat approximately 20 percent of San Leandro's dry weather flow and remove about 95 percent of the pitrogen from that flow
		In addition to the treatment wetland, San Leandro staff are working with
		consultants to develop a nutrient reduction roadmap. This involves
		modeling the treatment plant and proposing options for removing
		nitrogen. Options being investigated include treating belt press filtrate
		and returning it to neadworks for denumication and treating return activated sludge flow. The City has several tanks that are currently used
		for emergency storage that could be used for nitrification.
		The roadmap project will include planning level cost estimates of the
		recommended approaches. This will inform whether nutrient trading
		within the EBDA system is a viable option for the City. Stall are meeting with other EBDA members to discuss this option and have meet with
		Stanford researchers who may model various trading scenarios.
		San Leandro influent has a high degree of biochemical oxygen demand
		(BOD) variability which may cause problems with traditional nitrogen
		reduction approaches such as Modified Ludzack-Ettinger (MLE). Also
		the secondary effluent. These approaches include algae treatment or an
		offsite nature-based solution.
		Union Sanitary District (USD)
		Starting in 2015, USD's Enhanced Treatment and Site Upgrade Program
		was developed to renew and replace aging initiastructure, enhance wastewater treatment process, facilitate nutrient removal, and increase
		USD's resilience to extreme wet weather events and climate change.
		The ETSU Program includes the following project phases:
		• Phase 1A (in Construction): Retrofitting existing aeration basins to
		operate with anaerobic selector and a biological nutrient removal
		flexible aeration zones: installing internal recycle numps; and
		establishing new step-feed aeration and surface wasting operations.



Group	Discharger	Detailed Response
		Construction is anticipated to be completed by May 2027.
		• Phase 1B (Currently Bidding for Construction): Constructing four (4) 155-foot diameter secondary clarifiers, a mixed liquor control box, centralized return-activated sludge pump station, and effluent facilities. This will also include building new chlorination and dichlorination contact basins and a new effluent pump station and relocating the existing effluent force main. Construction is anticipated to be completed by August 2029.
		• Phase 1C (In Design): Retrofitting existing secondary clarifiers to operate as wet weather flow equalization basins. Construction is anticipated to be completed by January 2031
		USD is also looking to partner with the South Bay Salt Pond Restoration project to identify, develop, and pilot a nature-based solution. This is a new and recent endeavor for USD.
1	East Bay Municipal Utility District (EBMUD)	EBMUD has been developing a full-scale biological nutrient removal (BNR) process since 2020, utilizing the existing treatment facilities at the Main Wastewater Treatment Plant. This pilot project operates during the dry season to test and maximize total inorganic nitrogen (TIN) removal by adjusting the secondary treatment process parameters. The pilot project has used increasingly large portions of the secondary treatment process since 2020. Over the last two years, the pilot project utilized 50 percent of the secondary treatment process consistently and piloted 75 percent for two months in 2024. Additional pilot testing will continue into the future.
		The BNR pilot project has reduced the annual average dry season Total Inorganic Nitrogen loads in 2023 and 2024 from the 2019-2023 average load listed in Table F-4 of the Nutrients Watershed Permit (R2-2024- 0013). The listed 2019-2023 average load was 8,900 kg/day. The 2023 and 2024 average loads were 6,900 and 7,700 kg/day, respectively. As the pilot project expands and continues the average TIN loads are expected to drop further.
		EBMUD also provided the following information regarding future projects:
		Initial results from the BNR pilot study indicate that achieving nutrient goals is possible, but there will be no redundancy in the system. To address this, and the possibility that the BNR pilot will not meet nutrient goals, an Alternatives Analysis is being undertaken concurrently with the pilot project.



Group	Discharger	Detailed Response
		The District anticipates exploring two types of preliminary alternatives: Traditional Treatment Infrastructure and Optimization of Existing Infrastructure. The District prepared a Request for Proposals from nutrient removal experts to support the District in completing the alternatives analysis. As part of this project, the preliminary alternatives will be refined before performing subsequent technical analysis and selection of a compliance pathway. The alternatives analysis will be completed in parallel to the BNR pilot. Results/findings from each project will complement the other.
		Traditional Treatment Infrastructure: Preliminary alternatives that may be considered include options for capacity addition (i.e., adding new reactors for redundancy), intensification (e.g., hydrocyclone-based wasting to improve settling), split treatment, secondary process conversion, and sidestream treatment. Preliminary alternatives may also consider a combination of these options. Resource recovery via sidestream algal treatment is another solution that may be considered. This would require piloting to evaluate nitrogen recovery as an option instead of nitrogen removal.
		Optimization of Existing Infrastructure: Options to enhance the current pilot BNR performance and capacity by adjusting the solids retention time (SRT) and other operational changes are being considered. The piloting of this alternative has been ongoing before the release of the 2024 Nutrients Watershed Permit and significant nitrogen reduction has already been demonstrated for part of the dry weather season.
1	Fairfield Suisun SD (FSSD)	Project #1: Optimization - Lystek Direct Digestate Dilution Project - Implemented process interactions that allow FSSD digestate to be delivered directly to Lystek's biofertilizer reactors (i.e., no mechanical dewatering and the corresponding sidestream laden with nutrients). The estimated TIN load reduction is on the order of 10 to 15 percent. This Project was completed in October 2023.
		Project #2: Upgrade - Nitrogen Removal - Modifications to aeration basin activated sludge process to implement anoxic zones (Phase 1) and implement mixed liquor recycling (Phase 2) to improve denitrification. Phase 1 is scheduled for completion in 2027, and Phase 2 is estimated to be completed in 2033. After both Phases, FSSD is expected to meet its final TIN limit.
		FSSD has and will continue to explore recycled water and nature-based solution options. Implementation of a Recycled Water Master Plan is included in FSSD's current CIP. FSSD was also a part of the San Francisco Estuary Institute NbS study. FSSD is exploring these avenues



Group	Discharger	Detailed Response
		in the event of potential future changes in TIN limits or development of a trading program.
2	Millbrae, City of	In October 2024, the City completed a recycled water feasibility study for non-potable use. The City's wastewater treatment plant does not currently produce recycled water, so the study report provides recommendations for recycled water treatment and conveyance infrastructure improvements. The City is working on advancing its recycled water project towards implementation as recommended in the study report. To advance to full implementation, project partners (e.g. other neighboring agencies) and external funding are needed. The City plans to advance preparation of the basis of design and pre-design of the recycled water project in Calendar Year 2025.
		The recycled water project is not envisioned by itself to provide adequate reduction of nitrogen discharge to the San Francisco Bay for the City of Millbrae. Nutrient credit trading, which is not yet available to pursue, would be needed to provide the additional reduction needed for permit compliance.
		In October 2024, the City completed a recycled water feasibility study for non-potable use. The City's wastewater treatment plant does not currently produce recycled water, so the study report provides recommendations for recycled water treatment and conveyance infrastructure improvements. The City is working on advancing its recycled water project towards implementation as recommended in the study report. To advance to full implementation, project partners (e.g. other neighboring agencies) and external funding are needed. The City plans to advance preparation of the basis of design and pre-design of the recycled water project in Calendar Year 2025.
		The City expects that BACWA or other larger agencies will lead development of the program, and the City will participate once the program is established.



Group	Discharger	Detailed Response
1	Mt. View SD	The plant provides secondary treatment, including nitrification, using trickling filters. After treatment at the plant using traditional treatment infrastructure, nitrified effluent flows through Moorhen Marsh. The Marsh, constructed in 1974, was the first treatment wetland in the region. The marsh provides partial denitrification of effluent, with removal rates varying by season.
		Our facility already meets the final limit of 78 kg/day. We are still moving forward with investigating options for further nutrient reduction through the existing Moorhen Marsh to ensure breathing room with the limit. We are considering additional floating islands, configured and managed differently from current islands. We are also expecting a proposal by end of February 2025 for an alternate approach. Once that proposal is received, an approach will be selected and a timeline developed.
		Implementation of the project will begin in July 2025.
1	Novato SD	Project #1 Traditional Treatment Infrastructure NSD completed significant upgrades totaling over \$100 million to its treatment facilities in 2010 including addition of a Modified Ludzack- Ettinger (MLE) Process for biological nutrient removal.
		Project #2 Recycled Water NSD completed the first phase by adding a Recycled Water Facility to provide 0.85 MGD to North Marin Water District's purple pipes in 2012. The second phase of construction completed in 2019 brought the capacity of the Recycled Water Facility production to 1.7 MGD.
		Although NSD expects to be able to comply with the interim and final TIN limits, NSD is still evaluating additional projects.
		1) Optimization Operational optimization of the Modified Ludzack-Ettinger (MLE) Process to improve removal of TIN.
		2) Nature-based Solutions – NSD is participating in the wetlands' restoration projects described below, however, these projects are not directly under NSD's control. Therefore, while NSD cannot currently quantify any nutrient reductions that may result from the completion of these projects, NSD anticipates that they may be of future value for nutrient reduction.
		Bel Marin Keys Unit V: The California State Coastal Conservancy is restoring the Bel Marin Keys Unit V property to various habitat types. NSD is coordinating with this restoration, and NSD's outfall will be modified in conjunction with the restoration to provide treated effluent to



Group	Discharger	Detailed Response
		the site, supporting the development of brackish marsh habitat. https://www.scc.ca.gov/webmaster/project_sites/belmarin/grr- seir_intro.html Deer Island Basin Restoration: Marin County Flood Control District is in the process of restoring the Deer Island Basin (which is adjacent to NSD's treatment plant) to tidal marsh. The conceptual basis for this project includes incorporating wastewater discharge into future horizontal levees. https://www.sfei.org/documents/novato-creek- baylands-vision-integrating-ecological-functions-and-flood-protection- within https://flooddistrict.marincounty.gov/novato-creek-baylands-strategy- plan/
		3) Recycled Water NSD is currently able to produce and supply the North Marin Water District (NMWD) with 1.7 MGD of Title 22 recycled water for their purple pipe distribution system, or approximately half of NSD's dry weather flow. The current usage is approximately 1.3 MGD during the dry weather months so there is room for expansion/increased usage. However, current and future decisions on demand and supply of recycled water is driven by and under the control NMWD as the water supplier and not NSD; NSD only serves as a passive recycled water producer for NMWD.
1	Palo Alto, City of	The Palo Alto Regional Water Quality Control Plant is in the middle of a secondary treatment upgrade. This project involves reconfiguration of existing aeration basins to contain alternating nitrification and denitrification zones with eventual installation of membrane aerated biofilm reactors in the last stage of anoxic zones to enhance nitrogen removal. The project consists of six construction phases. As of this writing, Phase 1 of construction is near completion and has completed reconfiguration of one out of the four aeration basins. Upgraded aeration basins will be operated in nitrification mode until the fixed film reactors are decommissioned in Phase 5 of the project. Construction is ongoing and is anticipated to be completed in 2028. In addition to this project, smaller facility optimization, recycled water, and NbS projects that are anticipated to slightly decrease nutrient discharges are also in progress.



Group	Discharger	Detailed Response
1	Pinole, City of	The Pinole-Hercules Water Pollution Control Plant upgraded their treatment plant in 2019 with the ability to operate in either carbonaceous biochemical oxygen demand (cBOD) or nitrogen removal modes. As such, the plant should be listed as an early actor. To date, the plant primarily operates in cBOD mode as there are concerns with foaming associated with increasing the sludge age for nitrogen removal, as well as a low food:microorganism ratio issue in the middle of the night which is thought to impact sludge settleability. The plant is in the process of developing a strategy for addressing these challenges to operate in nitrogen removal mode.
3	Rodeo Sanitary District (RSD)	Living Levee - only in the preliminary understanding phase. RSD has been working with Chris Lim of the Contra Costa Resource Conservation District to see if there is a project and available funding/grants to implement such a project. RSD is looking to optimize the existing treatment system to see if a low nutrient discharge is possible. The primary focus will be the aeration basin system, primary flow routing into the aeration basin, other recirculation possibilities and control of centrifuge centrate. Only in the preliminary phase and no real analysis has been completed. RSD is not sure who we could trade with but the most logical would be the City of Pinole WPCP. RSD and the City of Pinole WPCP share a deep-water outfall into San Pablo Bay. Other discharges in the area would also be considered. Over the past 15 years, RSD has invested substantial capital to modernize its aging infrastructure and bring it into the 21st century. However, this work is far from complete. Numerous major projects remain critical to ensuring RSD can operate effectively and efficiently to protect public health and the environment. While RSD had also hoped to advance recycled water projects, budget constraints have made it impossible to pursue all initiatives simultaneously. As a result, some projects may face temporary delays or even permanent postponement to meet the increasingly stringent regulations imposed by State and Federal agencies, which continue to expand upon an already extensive regulatory framework.



Group	Discharger	Detailed Response
1	San Francisco Airport (SFO)	Project #1: The Recycled Water System Project will construct a new advanced water treatment plant (AWTP) downstream of the new sequence batch reactors. The AWTP will use microfiltration, reverse osmosis, and ultraviolet disinfection to create reusable non-potable water. Programming completed in June 2024 and 100 percent design is anticipated Spring 2025.
		Project #2: The Sequence Batch Reactor (SBR) Upgrade project will construct a new SBR equipped with aerobic granular sludge (AGS). The project will retrofit the existing SBRs with the same AGS technology, construct a new blower building, and install new infrastructure to operate, monitor, and maintain the new system. Programming is complete and 50 percent design is anticipated in May 2025.
1	San Francisco Public Utilities Commission Treasure Island	The new Treasure Island Water Resource Recovery Facility (TIWRRF) is considered an early actor because construction was initiated prior to issuance of the 3rd Watershed Permit effective date; construction notice-to-proceed was issued August 2023.
		The objective of TIWRRF project is to provide tertiary treatment to achieve an average dry weather flow capacity of at least 1.3 million gallons per day (MGD) and peak wet weather flow of 3.9 MGD to support the ongoing and future development on Treasure Island and Yerba Buena Island. Project will produce recycled water for existing and future non-potable water demands.
		 The following is the list of assets that has been designed and constructed: (1) Influent pumping structure consisting of solids handling submersible centrifugal pumps, (2) Fine screening and handling systems consisting of internally fed drum screens with 2 mm perforations and washer/compactor, (3) Biological Nutrient Removal and Membrane bioreactor (MBR) trains , (4) Ultraviolet disinfection system, (5) Solids handling facility consisting of waste activated sludge (WAS) holding tanks, aeration blowers, thickener feed pumps, rotary drum thickeners, sludge transfer/truck loading pumps, (6) Constructed wetland pond, (7) Distributed Control System to integrate and optimize performance of all processes. Construction completion is planned for 2026.



Group	Discharger	Detailed Response
1	San Jose/Santa Clara WPCP	1. Upgrade of advanced secondary treatment system: previous conventional secondary treatment system followed by nitrification treatment operated in series was upgraded to a parallel biological nutrient removal (BNR) process. This upgrade, which was not required by any regulation, increased overall secondary basin and treatment capacity and incorporated denitrification (nitrogen removal) into the advanced secondary treatment system. The BNR system achieved approximately a 40 percent reduction of TIN from 1998 – 2019.
		2. Recycled Water: secured one of the first Title 22 recycled water permits (95-117) in 1995 and in 1998 began a Title 22 recycled water program. Initial driver for recycled water was to keep dry season discharges below an average dry weather effluent flow of 120 mgd due to marsh conversion concerns. Since 1998, the south bay water recycling (SBWR) program has expanded from initially 1-2 mgd of dry season recycled water to 16 mgd of recycled water in the dry season and 11 mgd annual average. Today the SBWR diverts approximately 900 kg/day of TIN from the lower south bay.
		3. Optimization of BNR: Following metering, flow, and sludge control instrumentation and automation equipment replacements and upgrades, optimized the existing advanced secondary BNR process by targeted reductions of DO in anoxic zones, mixed liquor channels, and clarifiers. This was accomplished by reducing aeration throughout the 4-stage BNR process but especially in treatment zones where it is currently used for mixing. The result was an increase in TIN removal in the BNR process from the previous 40 percent reduction to now a 55 percent reduction.
		San Jose also provided the following information:
		Upgrade of existing advanced secondary aeration basins. The existing BNR process will be upgraded to a new process (SND/inDense) that will reconfigure the aerated and anoxic zones of existing basins, install mechanical mixing in anoxic zones to replace pulsed aeration mixing, and install hydrocyclones to separate and more precisely select and control activated sludge. The process will achieve simultaneous nitrification and denitrification (SND) and improve sludge quality through inDense hydrocyclones. This upgrade is in planning/scoping phase. The upgrade technology has been evaluated and compared against other upgrade treatment options in terms of cost, scalability, ability to phase and utilize current footprint and existing infrastructure. Project has not been initiated or fully funded. RWF anticipates beginning initial phase of the project by end of 2025 after completion of a technical update of the 2014 plant master plan (update to be completed in spring 2025). First



Group	Discharger	Detailed Response
		step of initiation will identify the preferred procurement and project model pathway and timeline for project phases.
		RWF operators and engineers are continuously seeking opportunities to optimize and get the best removal out of our process while balancing energy, chemical, infrastructure, basin capacity, operational, and cost constraints as demonstrated by recent improvements in denitrification efficiency.
		"Ongoing and continuous efforts to expand non-potable recycled water with private companies and water retailers in San Jose, Santa Clara, and Milpitas. Current constraints are infrastructure expansion to deliver recycled water to more of the service area. Recently entered into agreement with water retailer San Jose Water Company for an additional 5 mgd of recycled water over the next 10 years. Expansion of non-potable reuse is an ongoing effort to identify interested new customers and existing customers interested in expanding recycled water use. The program has grown slowly but steadily over the past 26 years.
		A potable reuse project is in very early stages and under discussion with regional partner Valley Water. Any potable reuse project would need to include management or treatment of the reverse osmosis concentrate (ROC) through a technology treatment system or through a nature-based solution (NbS) in order to realize meaningful nitrogen reductions."
		Sidestream treatment: this may be a viable alternative to managing the concentrated centrate return from the mechanical dewatering facility that is expected to be commissioned and operational by end of 2025. A real-world evaluation of the strength of the centrate return would need to be conducted first, selection of technology, and feasibility and cost of a sidestream treatment system would also need to be evaluated. At this point, this is purely conceptual.
		RWF has done an initial evaluation of nature-based solutions. There are opportunities for NbS in the vicinity of the RWF, which include re- purposing areas currently and formerly used for solids management (lagoons and drying beds) as open-celled treatment wetlands. There is also the potential for a horizontal levee on the bayward side of the future south bay shoreline flood control levee. An ecotone levee is planned to be a feature of the future flood control levee. The levee project is led (and funded) by U.S. Army Corps of Engineering, Valley Water, and State Coastal Conservancy. The timeline for both the levee and the availability of the solids handling areas are approximately 10 years in the future. Additionally, the initial desktop evaluation indicates that the NbS options would not be sufficient to treat a large volume of RWF final



Group	Discharger	Detailed Response
		effluent. They would be more effective if used to treat a more concentrated waste stream such as reverse osmosis concentrate.
1	San Mateo, City of	Project #1: This project involves construction of a Biological Nutrient Removal (BNR) and MBR facility that will transition San Mateo away from a traditional activated sludge process. Facility is scheduled to start treatment in July 2025.
3	Sausalito-Marin City SD (SMCSD)	Traditional Treatment Infrastructure: 1. Secondary Process Modifications. 2. Sidestream Treatment 3. Recycled Water. Process Optimization: 1. Nitrifying Trickling Filters with Denitrifying Tertiary Filters. 2. Process optimization with use of Ferric Chloride to treat nutrients at headworks and at an offline tank of sidestreamed Reactivated Sludge(RAS). 3. Installation of Membrane Bioreactor (MBR) for dry weather nutrient removal and recycled water. Recycled Water 1. Installation of a 1 mgd Membrane Bioreactor (MBR) with UV Disinfection. 2. Conversion of one of two Secondary Sedimentation Basins into an aeration basin with the addition of UV disinfection after the existing tertiary Disc Filtration Issue an RFP for annual (capital and O&M) cost per kg N/Day to Bay Area POTWs. Regional Water Quality Control Board Negotiation - due to the size of our plant, the dry weather discharge due to our location, unfairness of huge capital costs of a 40 percent reduction for small POTWs versus the large POTWs, and having to discharge recycled water into the bay due to having no water rights and no large customers in the area willing to take the water, we hope to be given consideration of our actual impact to San Francisco Bay.



Group	Discharger	Detailed Response
3	SD No. 5 of Marin County (Tiburon)	The District hired a consulting firm to evaluate the Districts options for preliminary alternatives as they were a minor discharger that did not receive an evaluation as part of the first regional nutrient watershed permit (R2-2014-0017). The evaluation suggests that the District move forward with one or more of the following alternatives: Sidestream Treatment to treat mechanical dewatering reject water. This stream is laden with 15 to 25 percent of the plant discharge nitrogen load. Seasonal MLE, whereby the sludge age would be increased in during the dry season foster ammonia removal, followed by creation of an anoxic zone within the existing aeration basins to facilitate biological denitrification. A concern with such a sludge age transition is the formation of nitrite associated with incomplete nitrification that could result in an increase in chlorine demand for several days (known as nitrite lock; on the order of five times greater than typical demand. Year-Round MLE: similar to alternative #1 with the exception that the District would operate in this mode year-round. The benefits of year-round operation would alleviate any concerns with nitrite lock, as well as the need to modify the biology a couple times per year. There are concerns with maintaining plant performance year-round. The compliance pathway will be more clearly defined in next year's update.
3	Sewerage Agency of Southern Marin (SASM)	 Three potential sites have been identified as potential sites for a nature-based solution. These sites each have different limitations and are currently in the research phase. The Agency already supplies effluent to a recycled water plant owned by the City of Mill Valley with a capacity to treat and store approximately 0.1MGD. Acquiring and expanding this plant and identifying customers would be required to satisfy the nutrient reduction needs. This alternative is currently in the research phase. We are open to consider any viable and practical trading alternatives as we have a very small and restricted treatment plant site. We are researching what the options of partnering with CMSA could be and would welcome other partnerships if they help us comply with regulatory needs and make financial sense.
1	SFPUC Southeast Plant (SFPUC SEP)	The SFPUC considers itself an early actor in terms of the permit's recognition that early actors may be provided more time to comply with final limits. The SFPUC's construction of the new Treasure Island Facility includes biological nutrient removal and was started before approval of the 3rd Watershed Permit, which meets the permit definition of an early actor. The funding, contracting resources, and staff resources to implement improvements at Treasure Island and the Southeast Plants

FJ


Group	Discharger	Detailed Response
		are the same and rely on the same rate-payer base. For the Southeast
		Plant, the SFPUC will continue report on the status of improvements to
		SEP consistent with the requirements of Table 5 in 6.3.3.1.
		Based on a preliminary conceptual evaluation, the proposed project
		- the retrofit of the existing high purity oxygen activated sludge system to produce densified activated sludge:
		 the construction of a new biological nutrient removal system; modification of existing aeration basins;
		- replacing the pure oxygen system: and
		- other major components, including supporting appurtenances and utilities.
		The proposed project includes planning, environmental review, progressive design-build contract procurement, design and construction, and closeout phases of the project.
		Note that the SFPUC requests to be considered an early actor because construction of the new Treasure Island Facility includes biological nutrient removal and was started before approval of the 3rd Watershed Permit. The funding, contracting resources, and staff resources to implement improvements at Treasure Island and the Southeast Plants are the same and rely on the same rate-payer base.
		Funding for this project has been approved in the capital improvement program budget based on an analysis of conceptual traditional infrastructure alternatives that was completed in 2023. The following planning started in 2024:
		 workshops to evaluate project delivery options have been completed, updated flows and loads analysis and sensitivity analyses on
		- coordination with the SEPLIC Water Enterprise to evaluate synergies
		with water supply needs has been initiated and
		- coordination with the SEPUC Power Enterprise to ensure adequate
		power supply has been initiated.
		The project delivery method of progressive design-build was selected in February 2025. A Needs Assessment Report is currently underway; thereafter, an Alternatives Analysis Report and a Conceptual Engineering Report will be completed. Design-build contractor is
		anticipated to be on board by end of 2025.



Group	Discharger	Detailed Response
3	Silicon Valley Clean Water (SVCW)	 I wish to outline several strategic approaches that SVCW is currently evaluating in response to the new nutrient regulations: 1. **Strategic Treatment Advancement Roadmap (STAR):** We are collaborating with Hazen and Sawyer to formulate a comprehensive plan to enhance our wastewater treatment plant. This plan will leverage our existing tank capacity and identify opportunities for process improvements.
		 Sidestream Treatment Approach: After thorough analysis, we selected the DEMON process to remove nitrogen from the sidestream. **PureWater Peninsula Initiative:** SVCW is engaged in meaningful discussions with the San Francisco Public Utilities Commission and other relevant organizations to advance the PureWater Peninsula project. This initiative aims to employ advanced technology to treat recycled water sourced from SVCW and San Mateo wastewater treatment plants, ensuring compliance with drinking water standards. **Expansion of Recycled Water Delivery:** Furthermore, we are in ongoing discussions with Redwood City concerning the enhancement of our recycled water delivery capabilities as they expand their distribution system.
2	South San Francisco and San Bruno	In 2022 Contractors completed plant improvements prescribed in the ten-year Facility Plant Update. One of the major improvements to the activated sludge systems included the addition of anaerobic selectors to the aeration basins. Engineers designed the anaerobic selectors to improve secondary clarifier solids settleability. Although designed to control activated sludge bulking, the anaerobic selectors also facilitate enhanced biological phosphorus removal as evidenced by a total phosphorus load reduction of greater than 85 percent since commissioning. The compliance pathway consists of process modifications to the existing aeration basins to provide nutrient removal (Anaerobic zone, anoxic zone, and aeration zone). In July 2024, the City of South San Francisco-San Bruno entered into a contract with Hazen to design pathways for meeting the new nutrient permit. In October 2024, Hazen collected baseline data for the development of a Biowin model to assess the facility's capacity.



Group	Discharger	Detailed Response
		In January 2025, Hazen presented the available alternatives for consideration.
1	Sunnyvale, City of	New Secondary Treatment Facilities which include construction of a Conventional Activated Sludge system (MLE process) designed to achieve nitrification and partial denitrification, a DEMON (deammonification) sidestream treatment system , and more, that will help Sunnyvale to be less reliant on the current pond system that can be hard to control. This will also improve Recycled Water production. Construction completion due May 2028.
2	Vallejo Flood and Wastewater District	The compliance pathway consists of the addition of activated sludge tankage configured for nutrient removal (MLE). The District will explore nutrients credit trading if a program becomes available. The District is preparing to hire a program manager by the end of the year. At the same time, studies and sampling are underway to provide a foundation for future design activities.
1	West County Wastewater (WCW)	In 2017, WCW completed upgrades to its activated sludge process, converting to the Modified-Ludzack-Ettinger (MLE) configuration. Since August of 2019, effluent Total Inorganic Nitrogen has averaged 6.25 mg/l with a low value of 4.3 and a high of 10.0 mg/L. More recently, WCW has installed a dual core Neuros centrifugal blower as its main air supply for the aeration system. This project and associated control system stabilized dissolved oxygen levels in the aeration basins while reducing electrical consumption at the same time. In addition to the changes noted above, WCW, under agreement with, provides its final effluent to the East Bay Municipal Utility District for further treatment then provided to the Chevron in place of potable water. The recycled water is used for cooling towers and boiler makeup. During the dry weather season, about 90 percent of WCW effluent is recycled and does not impact San Francisco Bay.



3.2 Others

There are four agencies excluded from this Appendix: (i) City of Petaluma, ii) Las Gallinas Valley, iii) Napa Sanitation District Sanitary District, and iv) Sonoma Valley County Sanitation District) as they are subject to dry season discharge prohibitions. As a result, they do not have effluent limitations in Table 4 of the 2024 Permit.

There are three dischargers whose loads are already lower than the Permit's Table 4 final effluent limitations and are thus not currently planning or investigating alternatives for additional TIN load reductions. This list is expected to grow in coming years as agencies plan and implement actions identified in this appendix. As of 2025, the list includes:

- Two Facilities: i) Crockett Community Services District (Port Costa Wastewater Treatment Facility) and ii) Sanitary District Number 5 of Marin County (Paradise Cove Treatment Plant) are minor dischargers (less than 1 MGD) and their final effluent limits were developed differently from other dischargers, as described on page F-26 of the Permit. Their combined contribution is less than 0.02 percent of the aggregate dry season load to San Francisco Bay. These two facilities are not discussed further in this appendix.
- **The City of American Canyon** provides nutrient removal through treatment and recycled water diversions. The facility is listed as an "Early Actor" in this appendix.

4 Next Steps

This compliance milestone schedule report will be updated and submitted annually, as required by Section 6.3.3 of the 2024 Permit.



This Page Intentionally Left Blank

SCIENCE TO INFORM MANAGEMENT

N. Washing

AN OVERVIEW OF THE Nutrient Management Strategy FOR SAN FRANCISCO BAY



Page 114 of 174

Acknowledgements

We extend our gratitude to the San Francisco Bay Nutrient Management Strategy Steering Committee, technical advisors, and scientific collaborators for their invaluable guidance and feedback, which have been instrumental in shaping the program and ensuring its scientific integrity.

We also acknowledge the critical support provided by the Bay Area Clean Water Agencies through the San Francisco Bay Nutrient Watershed Permit, administered by the San Francisco Bay Regional Water Quality Control Board. Additional funding from the US Environmental Protection Agency's Water Quality Improvement Fund, NOAA's MERHAB program, and other public sources has been vital in advancing our understanding of nutrient management strategies and informing management actions.

We appreciate support from others at SFEI, including Emily Corwin for her guidance and review of the draft version of this report, and the SFEI Science Communications design team, who designed and produced the report.

SUGGESTED CITATION

San Francisco Estuary Institute. 2025. *Science to Inform Management: An Overview of the Nutrient Management Strategy for San Francisco Bay.* SFEI Contribution #1239. San Francisco Estuary Institute, Richmond, CA.

VERSION v. 1.0 (March, 2025)

REPORT AVAILABILITY Report is available online at <u>www.sfei.org/programs/cw/nutrients</u>

IMAGE PERMISSION

Permissions rights for images used in this publication have been specifically acquired for one-time use in this publication only. Further use or reproduction is prohibited without express written permission from the individual or institution credited. For permissions and reproductions inquiries, please contact the responsible source directly.

COVER IMAGE CREDITS Cover photograph by Ariella Chelsky, SFEI.

SCIENCE TO INFORM MANAGEMENT

AN OVERVIEW OF THE Nutrient Management Strategy FOR SAN FRANCISCO BAY



AUTHORS Ian Wren David Senn Will Geiken Ariella Chelsky Dan Killam

DESIGN RUTH ASKEVOLD



March 2025

A product of the Nutrient Management Strategy team at SFEI

TABLE OF CONTENTS

1 EXECUTIVE SUMMARY

An introduction to the Nutrient Management Strategy and key lessons learned from a decade of study.





O2 INTRODUCTION

An overview of how nutrients like nitrogen and phosphorus enter San Francisco Bay and influence ecological health, algal production, and oxygen levels in the Bay.

03 MONITORING NUTRIENTS

Nutrient monitoring in San Francisco Bay, from the foundational studies by the USGS to modern advancements in technology that provide access to data on nutrient levels and their ecological impacts.



04 MODELING NUTRIENT DYNAMICS

The development and application of models to predict nutrient fluxes and impacts, supporting proactive nutrient management strategies across different regions of the Bay.





PROJECT PRIORITY

05 2022 HARMFUL ALGAL BLOOM

A dive into into the sudden and severe *Heterosigma akashiwo* bloom of 2022, chronicling its development, the extensive ecological disruptions it caused, and the enhanced monitoring and modeling efforts aimed at preventing future blooms.



06 STATUS AND TRENDS OF KEY INDICATORS

The use of advanced data analysis techniques to trace long-term and seasonal changes in key water quality indicators, leveraging innovative visualization tools to communicate findings.

IMAGES BY SFEI STAFF

GLOSSARY of TERMS

PAGES 30-31

Page 118 of 174

01 Executive Summary

Page 119 of 174

San Francisco Bay is a globally significant estuarine ecosystem facing growing challenges from nutrient enrichment, driven in part by wastewater effluent, stormwater, and agricultural runoff.

While historically resilient, the Bay's ability to buffer these inputs is weakening, signaling a critical shift.

The unprecedented 2022 *Heterosigma akashiwo* bloom, which resulted in widespread fish kills—including at least 864 dead sturgeon—underscores the urgency of addressing nutrient-related ecological risks.

Established in 2012, the San Francisco Bay Nutrient Management Strategy (NMS) provides the scientific foundation for managing these risks, leading efforts to assess, monitor, and mitigate nutrient impacts.

The NMS leverages advanced water quality monitoring technologies, predictive modeling, and collaborative governance to inform management decisions. These efforts have facilitated the evaluation of strategies to reduce nutrient loads and mitigate the risk of harmful algal blooms (HABs).

Recent advancements, including DNA-based identification of harmful algal taxa and remote sensing for near-realtime bloom detection, have strengthened the region's ability to protect vulnerable habitats and species.

Moving forward, the NMS will continue refining predictive models, expanding collaborative partnerships, and prioritizing proactive interventions to safeguard the Bay's ecological health and resilience.

PHOTO BY SHIRA BEZALEL, SFEI

KEY TAKEAWAYS

Bay Resilience and Vulnerability

Historically, high turbidity, strong tidal mixing, and filter-feeding organisms, like oysters, helped mitigate nutrient impacts. However, recent trends (e.g., increased phytoplankton biomass and harmful algal blooms) demonstrate this resilience is weakening.



Harmful Algal Blooms (HABs)

The 2022 *Heterosigma akashiwo* bloom exhibited unprecedented biomass levels, widespread dissolved oxygen depletion, and significant fish mortality, likely due to toxin production or other harmful mechanisms.



PHOTO CONTRIBUTION BY CITIZEN SCIENCE GROUP



Advancing Detection & Monitoring

Early detection of blooms through citizen science and advanced remote sensing has improved response capabilities. However, gaps remain in understanding the triggers of HABs and their long-term ecological impacts. The NMS is filling these gaps through worldclass models, advanced sensors, and real-time monitoring.



Critical Role of Nitrogen

Nitrogen levels are a key driver of algal blooms and chronic low dissolved oxygen, especially in shallow South Bay habitats, with strong links between nutrient availability, phytoplankton production, and oxygen depletion.



Wastewater Contributions

About 90% of dry season nutrient loads in San Francisco Bay come from wastewater treatment plants, dominated by dissolved inorganic nitrogen (DIN) and phosphorus, with South and Lower South Bays experiencing the highest concentrations.



Ongoing Science Needs

Improved predictive tools to evaluate the potential for future HAB events and the consequences of nutrient load reductions are critical for informing actions to reduce the risk of HABs in the Bay and coastal areas.



02 Introduction

The Bay's natural resistance to high nutrient concentrations is weakening

Page 124 of 174



The East Bay Municipal Utility District main wastewater treatment plant (shown in the aerial photograph below) is one of the largest treatment facilities around the Bay that collects, treats, and safely discharges wastewater to the San Francisco Bay (photograph courtesy of Alamy).

Nutrient Dynamics in San Francisco Bay

San Francisco Bay is a vital estuarine ecosystem that supports a complex food web dependent on regular inflows of essential nutrients like nitrogen and phosphorus.

While these nutrients are crucial for ecological health, excessive inputs can degrade water quality and disrupt habitat stability. Over-enrichment can fuel excessive phytoplankton growth, deplete dissolved oxygen, and trigger harmful algal blooms (HABs).

As one of the most nutrient-enriched estuaries globally, San Francisco Bay receives the majority of its nutrients from treated effluent discharged by 37 wastewater treatment plants in the Bay.

Historically, high suspended sediment levels limited sunlight penetration, while strong tidal mixing kept phytoplankton from remaining in the light-rich upper water column long enough to proliferate.

However, recent data suggest the Bay's natural resistance to nutrient overloading is weakening. Rising phytoplankton biomass, declining dissolved oxygen in some regions, and increasing detections of multiple HAB species signal a critical shift in the Bay's resilience.



The San Francisco Bay Nutrient Management Strategy

The San Francisco Bay Nutrient Management Strategy (NMS) was established in 2012 as a response to escalating nutrient-related challenges in the Bay. The NMS Science Program, based at the San Francisco Estuary Institute (SFEI) and collaboratively managed with the Regional Water Quality Control Board and other key stakeholders, operates under a structured governance model. This framework includes a 15-member Steering Committee comprising stakeholders from various sectors, including regulators and dischargers. This committee, supported by technical advisors and specialized workgroups, oversees the strategic direction and implementation of the NMS, ensuring that it remains responsive to the evolving needs of San Francisco Bay.

Mission

The mission of the NMS is to develop a comprehensive understanding of nutrient dynamics within San Francisco Bay to inform and guide effective management and policy decisions. This mission encompasses a range of activities, including continuously monitoring water quality parameters and developing numerical models to simulate and assess the effectiveness of management alternatives. By deploying technologies like moored sensors and engaging in high-frequency biogeochemical mapping, the NMS aims to enhance the understanding of nutrient cycling and the impacts of HABs. These efforts are crucial for developing informed, science-based strategies to mitigate the negative effects of nutrient over-enrichment and to protect the Bay's ecological health.

Impact

The NMS has influenced critical water quality management decisions across San Francisco Bay through its rigorous research and monitoring efforts. Through real-time data and analyses of nutrient dynamics, the NMS delivers crucial information for the stakeholders managing the Bay's complex ecological challenges. These efforts have contributed to significant policy decisions, including the establishment of a regional permit regulating the discharge of treated effluent from thirty-seven wastewater agencies into the Bay.

The urgency of addressing nutrient enrichment was underscored by the 2022 HAB event, which triggered ecological impacts from San Pablo Bay to the Lower South Bay. This incident triggered regulatory action intended to preserve the Bay's health. Consequently, there is a heightened focus on continuous monitoring and data integration to support scenario modeling and adaptive management strategies.

ESEARCH

O3Monitoring Nutrients in San Francisco Bay

Page 127 of 174

Historical Context of Monitoring Efforts

Nutrient monitoring in San Francisco Bay has its roots in the late 1960s when the U.S. Geological Survey (USGS) began systematic water quality assessments. From the early 1980s, biweekly to monthly monitoring has tracked numerous nutrient-related water quality parameters and yielded key insights into the underlying physical and biogeochemical processes that produce those conditions. This early data collection set the stage for a comprehensive understanding of how nutrient levels have influenced the Bay's ecological dynamics. In 1993, SFEI began implementing the Regional Monitoring Program (RMP) on behalf of regulators and stakeholders. The RMP was designed to consistently assess the Bay's ecological health. It established a robust monitoring collaboration with USGS and other partners aimed at identifying pollution sources, monitoring long-term trends, and evaluating water quality improvement measures. This partnership has significantly enhanced the depth and scope of data collection, profoundly shaping our understanding of the impacts of nutrients in San Francisco Bay.

age 128 of 17



Advancements Under the Nutrient Management Strategy

In 2012, growing concerns over the potential impacts of nutrient overloading prompted the San Francisco Bay Regional Water Quality Control Board to initiate the NMS as a collaborative science effort targeting the highest-priority management and science questions identified by a diverse group of stakeholders, including wastewater agencies, regulators, and environmental groups. The science program was designed to proactively address the Bay's nutrient challenges before adverse conditions similar to those seen in other nutrient-enriched systems emerged. This forward-looking approach reflects a shared commitment to managing and protecting the Bay's ecosystem.

Through this collaborative effort, the NMS has advanced the understanding of nutrient dynamics, phytoplankton diversity, and harmful algal toxins, with contributions from enhanced nutrient and phytoplankton monitoring and HAB-related parameter measurements by USGS. A major innovation, the Moored Sensor Program, operates in South Bay and Lower South Bay, collecting critical data every 15 minutes in regions excluded from long-term monitoring programs, enabling detection and interpretation of phenomena missed by traditional shipbased sampling.



- Ship-based stations Involves the continuation of the five-decade dataset initiated by USGS to detect water quality trends and identify emerging threats, including toxic HABs. Involves the collection of monthly data along the spine of the open Bay at a number of consistent locations.
- Mussel toxins Mussels collected over several years for near-shore sites were analyzed for Domoic Acid, a toxin produced by certain species of Pseudo-nitzschia that can impact marine life and human health; Saxitoxin, associated with Alexandrium and responsible for paralytic shellfish poisoning; and Microcystins, which can harm aquatic life and threaten humans and animals.
- Moored sensors Include a range of sensor types capturing data on nitrogen, dissolved oxygen, suspended sediment and other relevant indicators of nutrient status and ecological health.



Page 130 of 174

Enhanced Monitoring to Support Decision Making

Over the last several years the NMS incorporated multiple cutting-edge scientific methods into the nutrient monitoring framework:

- **DNA-Based Techniques:** Techniques like quantitative PCR (qPCR) precisely count specific harmful algae types, providing exact numbers of these organisms in water samples. Another method, metabarcoding, uses DNA sequencing to evaluate the relative abundance of various algae and bacteria, including harmful species, helping understand their ecological impact.
- **Biogeochemical Mapping Cruises:** In collaboration with the USGS Biogeochemistry group, these high-speed cruises target the biogeochemical processes in South Bay shoal habitats, improving our understanding of nutrient cycling and ecosystem productivity.
- Algal Toxin Tracking: Intended to monitor algal toxin presence, the biweekly collection of native mussels from the Bay's shoreline generates a record of toxins entering the local food web. Since 2015, its focus has been on monitoring harmful algal toxins like saxitoxin, domoic acid, and microcystin. Despite ongoing efforts, occasional exceedances of toxin thresholds highlight the persistent public health and ecological risks posed by HABs.
- **Remote Sensing for Bloom Detection:** Developed in collaboration with UC Santa Cruz to address the inadequacies of existing algorithms at detecting bloom extents, a refined two-band algorithm has proven effective in both bloom and non-bloom conditions. Near real-time data is available on a public map.



Current and Future Directions

The NMS continues to evolve, leveraging traditional and modern scientific techniques to address the complex challenge of nutrient management in San Francisco Bay. The strategy's focus is not only on understanding current conditions but also on predicting future ecological responses and informing effective management decisions. With ongoing advancements in technology and methodology, nutrient monitoring in San Francisco Bay stands on a robust platform poised to tackle the environmental challenges of the future. This dynamic approach ensures that the Bay's management strategies remain responsive to the changing ecological landscape. §



04 Modeling Nutrient Dynamics in San Francisco Bay

Nutrient Modeling: An Overview

San Francisco Bay's modeling program uses advanced computer simulations to understand how nutrients move through the Bay and impact water quality. These models simulate processes like nutrient cycling, phytoplankton growth, and dissolved oxygen levels, helping scientists simulate harmful algal blooms or predict low oxygen events. By combining realworld monitoring data with these simulations, the program evaluates different management scenarios, such as reducing nutrient inputs from wastewater treatment facilities, to determine their potential benefits for the Bay's health. This work supports informed decision-making to address the challenges of nutrient pollution and protect the Bay's ecosystem.

Numerical models integrate physical, chemical, and biological factors—such as wind, waves, sediment, nitrogen, phosphorus, carbon, oxygen, phytoplankton, and microbes—to predict how these elements interact and affect nutrient levels. This integration is essential for enhanced understanding and simulating management scenarios to support informed decision-making.

Recent Advances in Nutrient Modeling Capabilities

The NMS initiated the development of sophisticated 3D hydrodynamic and biogeochemical models in 2015, which marked a significant step in applying cutting-edge numerical modeling tools to nutrient management decisions in the Bay. The models aim to explore nutrient cycling, identify source contributions, track nutrient export to the coast, and assess the impacts of nutrient reductions on water quality. From 2015 to 2019, the focus expanded to include various regions of the Bay, including Suisun Bay, Delta, and the Lower South Bay. Since 2020, modeling efforts underwent extensive peer-reviewed analyses and were instrumental in investigating nutrient dynamics over consecutive water years.



For over ten years, the NMS modeling team has developed a coupled hydrodynamic water quality simulation tool. Eventually, the model can be used to test nutrient management actions and the consequences of future scenarios, such as population growth and climate change.

Model Applications to Inform Management Decisions

The coupled hydrodynamic and water quality model is a key tool to inform nutrient management strategies for San Francisco Bay. Following years of development and refinement, it will be used to simulate various nutrient loading scenarios and responses to management actions. This information is vital as the region implements costly wastewater upgrades to reduce nutrient inputs. The model provides detailed insights into nutrient cycling and ecological controls by integrating processes like pelagic grazing, sediment-water column nutrient exchanges, and light extinction.

The NMS's advanced modeling capabilities are essential for identifying the drivers of nutrient

cycling and understanding how nutrients move and transform within the Bay.

The evolving modeling capabilities of the NMS are crucial for regulators and decision-makers, offering vital insights that inform both short-term and long-term management strategies for San Francisco Bay. Recently, these models have been crucial in analyzing the 2022 *H. akashiwo* bloom and guiding strategies for nutrient load reduction. By simulating various scenarios and evaluating risks such as oxygen depletion, the models facilitate predictions of ecosystem responses, enabling informed and proactive management decisions.



Predicted chlorophyll-a, DIN and dissolved oxygen concentrations within Central, South and Lower South bays in Spring 2018 from the NMS coupled hydrodynamic and water quality model.

Future Directions in Nutrient Modeling

Moving forward, the focus will shift from model development to application, leveraging the models to predict how human activities influence ecosystem responses and to guide nutrient management investments.

Planned analyses to provide actionable insights to manage nutrients in the Bay include:

- Simulating management scenarios to evaluate the effectiveness of various nutrient reduction strategies.
- Examining nutrient load levels that trigger water quality threshold exceedances.
- · Assessing hydrological and meteorological conditions contributing to major bloom events.
- Evaluating nutrient exchanges with the coastal ocean.

PROGRAM PRIORITY

Citizen science reporting and analysis by CA Department of Fish and Wildlife confirmed at least 864 dead sturgeon were found from San Pablo Bay to the Lower South Bay, indicating the severe impact of the bloom on iconic fish species

05 Understanding the 2022 Heterosigma Akashiwo Bloom

San Francisco Bay, historically resilient to HABs, has experienced a significant increase in such incidents over recent years. During the summer of 2022, San Francisco Bay experienced a massive bloom of *Heterosigma akashiwo*, which marked a departure from the Bay's historical resilience to harmful algal blooms. This event challenged pre-existing views on the Bay's ecological stability and triggered a comprehensive scientific response to understand and manage the emerging risks.

Page 138 of 174

Dynamics and Impact of the Bloom

The Heterosigma akashiwo bloom, which began in July 2022 and lasted until September, was characterized by its rapid growth and massive consumption of nutrients. This led to a critical depletion of dissolved oxygen levels in the water, with concentrations falling below 5 mg/L for more than a week and, at times, dipping under 2 mg/L for several days. The result was a severe ecological disturbance marked by extensive fish kills across various species.



Microscopy image of *Heterosigma akashiwo*

> Courtesy of Luis Solorzano, <u>www.lasphotos.com</u>

Sturgeon were one of the most affected species, with the California Department of Fish and Wildlife documenting significant casualties. Citizen science reporting confirmed that at least 864 dead sturgeon were found from San Pablo Bay to the Lower South Bay and the outer coast, indicating the severe impact of the bloom on iconic fish species. Most sturgeon deaths occurred before oxygen levels plummeted, suggesting an unknown mode of non-specific toxicity. The NMS continues to derive lessons from the 2022 bloom to identify the likely timing and conditions under which a future event may occur and to inform ongoing regulatory decisions impacting all wastewater agencies in the Bay Area.

Scientific Investigation and Findings

Prompted by the unprecedented scale and impact of the bloom, the NMS and its partners mobilized to investigate its dynamics and contributing factors. Utilizing moored sensor data from the NMS and USGS, along with additional targeted water quality sampling, the scientific community focused on several key aspects of the bloom:

- **Growth and Biomass Analysis:** Detailed studies quantified the bloom's biomass and growth rate. These studies helped understand how quickly *H. akashiwo* was able to exploit the nutrient-rich conditions in the Bay.
- **Nitrogen Utilization:** Nitrogen levels were closely monitored to assess how the bloom utilized available nitrogen sources, including sediment flux and point discharges. Given its critical role in algal metabolism and growth, nitrogen was a focal point in supporting the rapid growth of the bloom.
- **Model Development:** A mathematical model was developed to simulate the bloom's dynamics, from initiation to collapse. This model aimed to unravel the complex interactions between biological growth and environmental factors, providing insights into potential triggers and controls of future blooms.

Ongoing Research and Future Directions

The 2022 *Heterosigma akashiwo* bloom underscored the critical need for enhanced monitoring and predictive modeling to manage and mitigate HABs. The NMS has responded by advancing its scientific methodologies to better understand and predict these events. By refining predictive models to analyze environmental triggers and nutrient levels, the NMS aims to proactively address HAB occurrences and minimize their impacts on the Bay's ecosystem.

Technological advances in HAB detection, such as quantitative PCR and metabarcoding, have significantly improved the NMS's ability to gather detailed data on algal taxa. This, coupled with ongoing toxin surveillance through mussel sampling, enables a more nuanced understanding of HAB dynamics. These efforts are crucial in tracking toxin levels and adapting strategies to ensure public health and ecological safety.

Looking forward, the NMS plans to deepen its exploration of nutrient load levels and the conditions that foster algal blooms. This involves refining existing monitoring and modeling techniques and working closely with regulators and wastewater agencies to inform effective management strategies. Additionally, the increased frequency and intensity of HABs have driven the NMS to bolster its response capabilities in collaboration with regional experts and citizen scientists to detect and track blooms more rapidly.

In 2023, the NMS received a substantial boost with a \$3 million NOAA grant to enhance its HAB monitoring capabilities. This initiative, led by SFEI, USGS, and the Department of Water Resources (DWR), focuses on advancing monitoring technologies and developing an online HAB tracking dashboard. This tool is designed to improve the understanding of HAB dynamics and support the development of more effective mitigation strategies, addressing the Bay's challenges with nutrient over-enrichment and its ecological consequences.



Remotely sensed chlorophyll estimates during the 2022 HAB event. The data are from the ESA Sentinel-3 satellite, processed using a locally tuned algorithm for San Francisco Bay.

Status and Trends of Key Nutrient Indicators

A series of web-based dashboards display the status and trends of various nutrient indicators, improving accessibility and promoting broader engagement, thus underscoring our commitment to transparency and effective communication in our efforts

The NMS has adopted innovative methods to monitor water quality trends, inspired by successful models from the Chesapeake Bay and other regions. These include using generalized additive models to analyze shifts in water quality over multiple decades and capturing both long-term trends and seasonal fluctuations. Our approach has been refined into a peer-reviewed method and implemented in an interactive data visualization tool. This webbased dashboard displays these trends, improving accessibility and promoting broader engagement, thus underscoring our commitment to transparency and effective communication in our efforts.

NUTRIENT MANAGEMENT STRATEGY



Measuring phytoplankton communities over time

Looking at Data Online *What can we learn from looking at patterns?*

Detecting trends in water quality data is essential for managing urban estuaries, which face pressures from nutrient loading, wastewater discharges, and climate variability. Tracking changes in chlorophyll-a or dissolved oxygen provides early warnings of ecosystem stress, such as harmful algal blooms or hypoxia, which can have severe ecological and economic consequences. These insights enable scientists and managers to understand the direction of ecosystem health, identify critical thresholds, and respond proactively with targeted interventions, like nutrient reduction strategies or habitat restoration efforts.

The NMS developed a trend detection tool to analyzes long-term water quality data from the USGS' ship-based monitoring program. This advanced tool identifies seasonal and longterm trends for nutrient-related parameters like chlorophyll-a, dissolved oxygen, gross primary productivity, and dissolved inorganic nitrogen. By using Generalized Additive Models (GAMs) and meta-analysis, the tool accounts for uncertainties in the data, such as missing or irregular sampling, ensuring robust detection of significant trends.

Complementing this tool, the NMS developed additional web-based visualization tools. These platforms allow users to explore trends in nutrient loading from wastewater treatment plants, dissolved oxygen conditions in the Lower South Bay, and harmful algae and phytoplankton communities detected using cutting-edge technologies. These tools serve to equip decisionmakers with actionable insights to protect and sustain this vital ecosystem.



Available web-based visualization tools:

Long-term trends of several parameters, including chlorophyll-a, dissolved oxygen, and dissolved inorganic nitrogen, from ship-based monitoring data in the South Bay.

<u>Chlorophyll-a and dissolved oxygen levels across</u> <u>all major long-term USGS water quality monitoring</u> <u>stations.</u>

Dissolved Oxygen in Lower South Bay, based on high-frequency sensors deployed along the shallow margins.

Nutrient loading over time from wastewater plants throughout the region.

San Francisco Bay HAB data obtained through molecular analysis of surface water samples collected during USGS cruises.

Phytoplankton data collected since 2017 using an Imaging Flow Cytobot, in collaboration between the UCSC Kudela Lab and USGS CA Water Science Center.

PHOTO BY EMILY CORWIN, SFEI




Estimated mean Aug-Oct chla concentrations, 1990-2023 (vertical lines: 95% confidence intervals), in San Pablo Bay (s13), Central Bay (s21, near Bay Bridge), and South Bay (s30, midway between the San Mateo and Dumbarton Bridges). Symbol color represents long-term trend in Aug-Oct chla, based on an 11-yr rolling window (right justified). Visit this webtool to explore long-term trends in chla, dissolved oxygen, and gross primary productivity at South Bay and Central Bay stations. Note: 2022 mean chlorophyll values are skewed by the August Heterosigma bloom event.

Chlorophyll-a Trends

Chlorophyll-a serves as a key indicator of phytoplankton concentration because it is a primary pigment used in photosynthesis, directly correlating with the abundance and biomass of these microscopic algae in aquatic systems. Scientists at the USGS and other institutions have monitored chlorophyll-a concentrations in San Francisco Bay for decades to track changes in ecosystem productivity and water quality.

From 1990 to 2005, chlorophyll-a concentrations in the San Francisco Estuary showed a significant increase, driven by heightened phytoplankton biomass and primary production, particularly in the southern regions of the Bay. This trend peaked around 2005 to 2010, after which chlorophyll-a levels began to decline, with notable decreases observed through 2019. Seasonal patterns emerged, with spring chlorophyll-a peaks (January to June) consistently increasing in earlier years, while summer-fall peaks (July to December) displayed less variability across different locations.

The trends were more pronounced in the southern stations, where early increases in chlorophyll-a transitioned to significant declines after 2010. This regional variability suggests that local drivers, such as nutrient loads, hydrodynamics, and ecosystem-specific changes, played a critical role in shaping chlorophyll-a dynamics over time. These findings underscore the complexity of interactions between natural and anthropogenic influences in the estuary.

Generalized Additive Models (GAMs) were instrumental in analyzing these trends, enabling researchers to account for uncertainties in the monitoring data and identify nuanced seasonal and spatial patterns. This robust analytical approach highlights the importance of long-term monitoring and adaptive management to understand and address evolving water quality challenges in the San Francisco Estuary.

A water quality visualization tool is available to explore long-term trends in several parameters, including chlorophyll-a, dissolved oxygen, and dissolved inorganic nitrogen (DIN), based on ship-based monitoring data. The tool can be accessed at https://nutrient-data.sfei.org/SFbaytrends/app2/.

ADDITIONAL RESOURCES

Beck, Marcus W., et al. "Multi-scale trend analysis of water quality using error propagation of generalized additive models." Science of the Total Environment 802 (2022): 149927.

Cloern, J.E., and Schraga, T.S., 2016, USGS Measurements of Water Quality in San Francisco Bay (CA), 1969-2015 (ver. 4.0, March 2023): U. S. Geological Survey data release, <u>https://doi.org/10.5066/F7TQ5ZPR</u>.



Estimated mean Aug-Oct depth-averaged dissolved oxygen concentrations, 1990-2024 (vertical lines: 95% confidence intervals), in South Bay (s30) and Central Bay (s21). Symbol color represents long-term trend in Aug-Oct D0, based on an 11-yr rolling window (right-justified; same legend as for chla).

Dissolved Oxygen Trends

San Francisco Bay's open bay regions, which include deep subtidal habitats, exhibit relatively stable and well-oxygenated conditions despite significant nutrient loading from wastewater and urban runoff. Long-term monitoring data indicate that dissolved oxygen (DO) levels in these areas generally remain above 7 mg/L, satisfying the Basin Plan objective of 5 mg/L. Seasonal variability does occur, however, with DO levels slightly decreasing in summer and early fall due to higher temperatures and increased biological oxygen demand.

Recent events, such as the 2022 *Heterosigma akashiwo* algal bloom, underscore the Bay's vulnerability despite its historical resilience. The bloom led to transient reductions in DO, particularly in South Bay, with levels dropping to 2-3 mg/L in localized areas after the bloom's abrupt termination. Such events, while episodic, highlight the potential for nutrient enrichment and organic matter decomposition to stress the system, particularly during warm and low-flow periods. Nonetheless, the overall DO regime in the open bay has not shown a consistent trend toward hypoxia over recent decades, suggesting that the system remains generally resilient.

Proactive nutrient management and monitoring are critical to sustaining the open bay's favorable DO conditions amid changing climatic and anthropogenic pressures. While the Bay continues to demonstrate healthy oxygen in its deeper habitats, its ability to withstand high nutrient loads may decline if large-scale algal blooms and resulting crashes in oxygen levels become more frequent. Enhanced understanding of nutrient cycling and its influence on DO dynamics will be essential to maintaining ecological stability in these open bay environments.

ADDITIONAL RESOURCES

- <u>Chelsky, A., D. Killam, L. Mourier, D. Senn. 2023. Updated Technical Report Virginian Province</u> <u>Approach to Dissolved Oxygen in Lower South San Francisco Bay Sloughs</u>. SFEI, Richmond, CA.
- MacVean, L., L. Lewis, P. Trowbridge, J. Hobbs, D. Senn. 2018. <u>Dissolved Oxygen in South San</u> <u>Francisco Bay: Variability, Important Processes, and Implications for Understanding Fish</u> <u>Habitat. Technical Report. SFEI, Richmond, CA.</u>



GLOSSARY

The nutrient composition of San Francisco Bay is influenced by various factors, including the inflow of freshwater, oceanic influences, and human activities. The Bay is an estuary, where freshwater from rivers and streams mixes with saltwater from the Pacific Ocean. Here are some general terms regarding nutrient status of San Francisco Bay.

Nutrients:

Chemicals such as nitrogen and phosphorus essential for plant and algal growth. Excessive amounts can lead to water quality issues.

Eutrophication:

A process where water bodies become overly enriched with nutrients, leading to excessive algal blooms and low oxygen levels.

Harmful Algal Blooms (HABs):

Rapid growth of algae that can produce toxins harmful to aquatic life, humans, and water quality.

Phytoplankton:

Microscopic plants that form the base of aquatic food webs. While essential, their overgrowth due to nutrient pollution can disrupt ecosystems.

Chlorophyll-a:

A pigment found in algae, used as an indicator of phytoplankton biomass and water quality.

Dissolved Oxygen (DO):

The amount of oxygen dissolved in water, critical for aquatic life. Low DO (hypoxia) can harm or kill fish and other organisms.

Subembayments:

Specific sections of San Francisco Bay (e.g., South Bay, Lower South Bay) with unique environmental characteristics and challenges.

Point Sources:

Direct sources of nutrient pollution, like wastewater treatment plants, contributing high loads of nitrogen and phosphorus to the Bay.

Resilience:

The Bay's ability to withstand impacts of nutrient loading without severe water quality problems, which may be decreasing due to recent changes.

Water Quality Objectives:

Standards set to ensure water remains healthy for aquatic life and human use. For example, the 5 mg/L DO threshold in San Francisco Bay.

Nutrient Management Strategy:

A coordinated effort to monitor, understand, and manage nutrient inputs in San Francisco Bay to protect water quality and ecosystem health.

Assessment Framework:

A structured approach to evaluate the condition of water bodies, using indicators like dissolved oxygen and chlorophyll-a to assess the health of aquatic habitats. §





Photographs from NMS field work by the SFEI NMS team.



San Francisco Estuary Institute. 2025. *Science to Inform Management: An Overview of the Nutrient Management Strategy* for San Francisco Bay. SFEI Contribution #1239. San Francisco Estuary Institute, Richmond, CA.

Page 151 of 174

ITEM NO. <u>RA6</u> SFPUC SUPREME COURT DECISION

Recommendation

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

Strategic Plan Linkage

- 1. **Regulatory Compliance:** Proactively meet or exceed regulatory requirements for protection of the environment and public health.
 - a. Represent EBDA and the Member Agencies' interests by preemptively engaging in development of emerging regulations and permits and advocating for reasonable, science-based decisions.

Background

The San Francisco Public Utilities Commission (SFPUC) discharges to the Pacific Ocean from its Oceanside Water Pollution Control Plant. Because the discharge is to federal waters, the facility's National Pollutant Discharge Elimination System (NPDES) permit is issued by the US Environmental Protection Agency (EPA) rather than the Regional Water Quality Control Board. In 2023, SFPUC challenged its NPDES permit, with the case ultimately reaching the Supreme Court. On March 4, 2025, the Supreme Court ruled in favor of SFPUC. This report outlines the key issue in the case and potential implications for EBDA.

Discussion

EPA sets standards to protect water bodies in the US, and NPDES permits implement those standards to prevent discharges to the water body from degrading the quality of the water. NPDES permits, including EBDA's, generally have two types of limits, both intended to protect the water body receiving the discharge. Effluent limits impose specific measurable limits on the discharge itself, e.g., 30 mg/L Total Suspended Solids (TSS). Receiving water limits are narrative and require the discharger not to cause or contribute to undesirable conditions in the receiving water. For example: "The discharge shall not cause the following conditions at any place in receiving waters: Floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses."

At issue in the San Francisco case was the fact that EPA had previously threatened to enforce on SFPUC for violations of the receiving water limits, and so SFPUC objected to the inclusion of such limits in their Oceanside permit. SFPUC argued that it is EPA's responsibility to translate its water quality standards into specific effluent limits so that dischargers have clear expectations on what they must do to comply. They argued that holding a discharger responsible for compliance with receiving water conditions is inappropriate, given that they do not have full control over what contributes to those conditions. For example, another discharger may discharge to the same water body, and it is not fair to penalize one discharger for conditions that may be the fault of the other. Given the consistent use of these receiving water limits in permits and the associated

Agenda Explanation East Bay Dischargers Authority Regulatory Affairs Committee April 15, 2025

risk, many other organizations, including the National League of Cities, California League of Cities, California Association of Sanitation Agencies (CASA), and National Association of Clean Water Agencies (NACWA) joined the suit in support of SFPUC's argument.

The Supreme Court found in favor of SFPUC, ruling that the Clean Water Act does not authorize EPA to include so-called "end result requirements" in permits. Per the San Francisco City Attorney's Office, "While the Clean Water Act authorizes EPA 'to set rules that a permittee must follow in order to achieve a desired result, namely, a certain degree of water quality,' the Act does not allow EPA to impose permit terms that hold permitholders responsible for conditions in the receiving water that the permitholder cannot control."

While some media coverage and environmental group messaging have characterized the decision as weakening EPA's ability to regulate under the Clean Water Act, the decision was in fact very narrow. No law, regulations, or detailed technical requirements of NPDES permits have been substantively changed. Rather, three sentences in SFPUC's 150-page permit have been invalidated. From the perspective of the wastewater community, the narrow decision will lead to clearer permit terms and protect ratepayers from potential costly and extensive litigation, while preserving the substantive requirements of the Clean Water Act. EPA retains the power to set permit limitations that will achieve water quality standards, they must translate those water quality standards into more specific effluent limits rather than relying on broad receiving water limits. Going forward, permitholders should have predictable, knowable standards to protect water quality.

EBDA and all dischargers that discharge to the San Francisco Bay also have receiving water limitations in their NPDES permits. The Regional Water Quality Control Board is currently reviewing the decision to determine what, if any, changes need to be made to permits in our region to comply with the decision. They have postponed reissuance of any NPDES permits until they make that determination. In addition to the Clean Water Act, NPDES permits in California also implement the Porter-Cologne Act of 1969 – California's clean water law. The Water Board's attorneys are, therefore, also examining their related authorities under Porter-Cologne and their ability to retain certain provisions in spite of this Clean Water Act ruling. When EBDA's permit is renewed in 2027, it is likely to be more specific and explicit with regard to effluent limitations. Staff will be watching closely as the next set of NPDES permits are reissued in our region.

Additional resources about the Court's decision can be found at the following links: <u>https://www.sfpuc.gov/about-us/news/supreme-court-issues-decision-san-franciscos-favor-water-quality-permitting-case</u> <u>https://www.sfcityattorney.org/wp-content/uploads/2025/03/Memoradum-re-SCOTUS-decision.pdf</u> <u>https://casaweb.org/in-case-you-missed-it-3-13-25/</u>

ITEM NO. <u>RA7</u> BACWA KEY REGULATORY ISSUES SUMMARY

Recommendation

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

Strategic Plan Linkage

- 1. **Regulatory Compliance:** Proactively meet or exceed regulatory requirements for protection of the environment and public health.
 - a. Represent EBDA and the Member Agencies' interests by preemptively engaging in development of emerging regulations and permits and advocating for reasonable, science-based decisions.
 - c. Ensure compliance with non-NPDES permits and regulatory requirements, including air quality and hazardous waste.
 - e. Track and share scientific and regulatory developments related to emerging contaminants, and advocate for source control.

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. This latest version highlights updates made in purple. Previous versions are available at <u>https://bacwa.org/regulatory-issues-summaries/</u>.



KEY REGULATORY ISSUE SUMMARY Updated February 28, 2025

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

Contents	Page		
Nutrients in San Francisco Bay	1	Sanitary Sewer Systems General Order	10
SF Bay Nutrient Watershed Permit	2	Laboratory Accreditation	11
Ocean Acidification & Hypoxia	3	Biosolids	12
Pesticides	4	Climate Change Adaptation	13
Mercury and PCBs	5	Climate Change Mitigation	14
State Water Board Toxicity Provisions	6	Toxic Air Contaminants	15
Contaminants of Emerging Concern (CECs)	7	Best Available Control Technology	16
Microplastics	8	Recycled Water	17
Per- and Polyfluoroalkyl Substances (PFAS)	9	Acronyms	18

New updates in this version are shown in Purple highlighting					
Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources		
NUTRIENTS IN SAN FRANCISCO BAY					
 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. In the early 2000s, monitoring data of the Bay suggested that this historic resilience could be weakening. In 2012, stakeholders in the region formed the Nutrient Management Strategy (NMS) to prioritize scientific studies and ensure that all science to be used for policy decisions is conducted under one umbrella. Program management of the NMS is led by the San Francisco Estuary Institute (SFEI). In summer 2022, a harmful algae bloom in San Francisco Bay brought increased public attention to this topic. 	 For FY25, BACWA is contributing \$2.2M to fund scientific research by the NMS science team, fulfilling a requirement of the 2024 Watershed Permit. In recent years, the NMS has also been successful in attracting funding from other sources, such as NOAA and EPA, complementing BACWA's contributions. The focus of current scientific efforts is improving model representation of biogeochemistry, light attenuation, dissolved oxygen, and harmful algal bloom dynamics. The science team is currently working with stakeholders to develop a multi-year work plan for 2025-2029. The science team is preparing to release a summary of recently completed and ongoing studies of nutrients in San Francisco Bay. The summary will be suitable for wide distribution. 	 Continue to participate in NMS steering committee, Nutrient Technical Workgroup, and planning subcommittee meetings, and provide funding for scientific studies via the Nutrient Surcharge. Continue to work with NMS scientists to obtain summaries of scientific accomplishments for public use. Continue to engage with Nutrient Technical Team and BACWA's Nutrient Management Strategy technical consultant, Mike Connor, to provide review of recent work products and charge questions for the science team. 	BACWA Nutrients Page SFEI Nutrient Management Strategy Page NMS FY25 Science Program Plan Materials NMS Steering Committee Meeting Materials NMS Work Products Real-Time Satellite Data on Harmful Algae Blooms Baywise Website		

SF BAY NUTRIENT WATERSHED PERMIT

- The Nutrient Watershed Permit was first adopted in 2014. It required effluent monitoring and a regional study on Nutrient Treatment by Optimization and Upgrades, completed in 2018.
- The 2019 Nutrient Watershed Permit required continued monitoring and reporting of nutrient loads, significantly increased funding for scientific studies, and completion of a regional assessment of nutrient diversions through nature-based systems and recycled water, completed in 2023.
- The Nutrient Watershed Permit was reissued in 2024 and requires:
- Continued individual POTW nutrient monitoring and reporting;
- Continued funding for science;
- Effective in the 2025 dry season, interim performance-based effluent limits for Total Inorganic Nitrogen (TIN);
- Effective in the 2035 dry season, final water quality-based effluent limits for TIN;
- Continued group annual reporting for each water year (Oct. 1 – Sep. 30), with additional reporting related to the permit's 10-year compliance schedule;
- Recognition of "early actors" that began implementing nutrient removal projects before October 1, 2024; and
- Completion of a regional planning study.

- The final effluent limits in the 2024 Nutrient Watershed Permit are 40% lower than actual loads from the 2022 dry season, when San Francisco Bay experienced a harmful algae bloom.
- The permit contains a 10-year compliance schedule for complying with the final effluent limits. Some agencies will have difficulty meeting this deadline due to the magnitude and complexity of anticipated projects.
- To address this challenge, the Regional Water Board is working to identify a regulatory mechanism to extend the compliance schedule beyond 10 years where necessary. This commitment is outlined in a Board <u>resolution</u> and will likely require a change in the State Water Board compliance schedule policy.
- Through the nutrient surcharge levied on permittees, BACWA will fund compliance with the following provisions of the 2024 Nutrient Watershed Permit behalf of its members:
- o Funding for scientific studies
- Group Annual Reporting, including compliance milestone reporting
- Completion of a regional planning study

BACWA has hired the consulting firm HDR to assist with the completion of Group Annual Reports and the Regional Planning study.

 In August 2024, BACWA assisted with hosting a <u>technical seminar</u> on nutrient removal technology at Bay Area wastewater treatment plants.

- By early 2024, POTWs must identify their preliminary alternatives for meeting final effluent limits, per Table 5 of the Nutrient Watershed Permit. "Early actors" will instead submit status updates. BACWA has circulated a Request for Information for agencies to provide this information for inclusion in the Group Annual Report due April 1st.
- Review the Draft Scoping Plan, which will be circulated in Spring 2025. The scoping plan is due by July 1st, and will outline the approach BACWA intends to take on regional planning to reduce TIN loads. The Regional Planning study, due in March 2029, will address elements such as schedule, cost, cross-media impacts to air and biosolids, opportunities for multi-benefit projects, nutrient trading, and more.
- Work with Regional Water Board staff and other stakeholders to identify a regulatory mechanism for extending compliance schedules beyond 10 years. Preliminary work is focusing on possible edits to the State's 2008 Compliance Schedule Policy.
- Agencies will continue to report nutrient monitoring data directly to CIWQS, which HDR will compile for Group Annual Reports. For the 2025 Group Annual Report and beyond, separate submittal of nutrient monitoring data to BACWA is no longer needed.

2024 Nutrient Watershed Permit

2024 Regional Water Board Resolution on Extending Compliance Schedule

BACWA Nutrients Page

Resources from Dr. David Jenkins Technical Series Nutrient Seminar (August 2024)

OCEAN ACIDIFICATION & HYPOXIA

- Ocean acidification (low pH) is one of the potentially harmful effects of climate change in water bodies. It is caused by the uptake of carbon dioxide from the atmosphere and other sources. Ocean acidification threatens the survival of many marine organisms, especially those with carbonate shells which can dissolve under low-pH conditions.
- Nutrients from wastewater and other sources can cause algae blooms which can lead to hypoxia (low dissolved oxygen) when the algae decays and exerts biological oxygen demand. This process can also lead to acidification when the carbon from the algae is released into the ocean as carbon dioxide. Because nutrient inputs and algal production can contribute to both problems, they are grouped together under the umbrella term "Ocean Acidification & Hypoxia."
- State Water Board policy regarding discharges to the Ocean are contained in the California Ocean Plan. Currently, no regulations in the Ocean Plan directly address Ocean Acidification & Hypoxia caused by wastewater discharges. However, future regulations could limit coastal discharges of nutrients in order to reduce the potential for Ocean Acidification & Hypoxia.

- The <u>Ocean Protection Council</u> is the main State agency supporting scientific efforts related to Ocean Acidification & Hypoxia along the California coast.
- The Ocean Protection Council has funded the Southern California Coastal Water Research Project (<u>SCCWRP</u>) to conduct research and modeling on Ocean Acidification & Hypoxia due to nutrient pollution in southern California and along the San Francisco and Monterey coasts.
- In 2023-2024, the National Water Research Institute convened an expert review panel to review the modeling efforts led by SCCWRP. Because of the work's relevance to northern California wastewater agencies that discharge to coastal waters, BACWA's Executive Director is assisting with the Project Steering Committee. In 2024, the expert panel provided a final report with recommendations for improving the model to make it suitable for application in a regulatory context.
- The State Water Board is scoping an amendment to the California Ocean Plan amendment to address ocean acidification, hypoxia, and the effects of anthropogenic sources of nutrients in ocean waters.

- Continue to track refinement of SCCWRP's modeling tools, which could be used to establish State Water Board policy on nutrient discharges to the coastal ocean. The wastewater community is advocating for model improvements to accurately capture the impacts of wastewater discharges, and to inform monitoring work that will support our understanding of ocean impacts of nutrients.
- Continue to participate in the San Francisco Bay Nutrient Management Strategy, which is already addressing many related issues.

State Water Resources Control Board's <u>California</u> <u>Ocean Plan</u>

Timelines for Planning, Policy, and Permitting Efforts at the State and Regional Water Boards

Ocean Acidification and Hypoxia - California Ocean Protection Council

National Water Research Institute - Expert Review Panel

Background Highlights

PESTICIDES

- Pesticides are regulated via the Federal Insecticide, Fungicide, and Rodenticide Act (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.
- EPA reviews all registered pesticides at least once every 15 years. Each review allows an opportunity for public comment.
- Through BAPPG's Pesticides Committee, BACWA aims to proactively support a scientific and regulatory advocacy program so that pesticides will not impact POTWs' primary functions of collecting and treating wastewater, recycling water, and managing biosolids, or impact receiving waters via the "down the drain" route.
- Based on the most (2024)
 <u>BAPPG/BACWA Pesticide Watch List</u>, the pesticides of highest concern in wastewater are:
 - o Pyrethroids (21 chemicals)
 - o Fipronil
 - o Imidacloprid

- BACWA continues to fund consultant support to write comment letters advocating for the consideration of POTW and surface water issues by EPA and the California Department of Pesticide Registration (CalDPR). Funding for pesticide regulatory outreach in FY25 is \$72k.
- The Regional Water Board leverages BACWA's efforts to provide their own comment letters.
- The BAPPG Pesticides Committee has developed a workplan for outreach on pet pesticides (see January 2025 meeting presentation).
- Additions to the <u>BAPPG/BACWA</u> <u>Pesticides Watch List</u> "moderate concern" tier in 2024 included:
 - Carbendazim, a preservative found in paints and other products
 - Quaternary Ammonium Compounds (see CECs, pg. 7).

In December 2024, EPA released a proposal to use aquatic life benchmarks from the Office of Pesticide Programs in the Clean Water Act program, where they could be used as recommended water quality criteria. If adopted, the Clean Water Act program would have new recommended water quality criteria for more than 750 pesticides. Comments on the proposal are due February 26th, 2025. BACWA members are encouraged to conduct public and veterinary office outreach using flea and tick outreach toolkits. Baywise.org has flea and tick control messaging for pet owners and veterinarians. In addition, the BACWA website offers member agencies toolkits for conducting outreach to pet owners and veterinary offices.

Next Steps for BACWA

- Advocate for implementation of specific actions from the CalDPR Sustainable Pesticide Management Roadmap.
- Continue to comment on EPA pesticide re-registrations and CalDPR actions.
- Engage with EPA on proposed changes to the regulatory approval process for pesticides.
- Work with veterinary associations on messaging with respect to flea and tick control alternatives.
- Continue to develop summaries of EPA actions on pesticides.
- Look for opportunities to work with CalDPR on pesticides research.
- Work with other regional associations, such as CASQA, to collaborate on funding pesticide regulatory outreach.

BACWA Pesticide Regulatory Support Page

Toolkits for Member Outreach on Flea and Tick Pest Control

Baywise flea and tick pages

CalDPR Sustainable Pest Management Roadmap

BAPPG/BACWA Pesticides Watch List (2024)

EPA Proposal: Common Effects Approach for Aquatic Life Protective Values for Pesticides

January 2025 Presentation from S. Hughes to BAPPG on Pesticides

4

MERCURY AND PCBS

- The Mercury & PCBs Watershed Permit is based on Total Maximum Daily Loads (TMDLs) for San Francisco Bay for each of these pollutants.
- The Mercury & PCBs Watershed Permit was most recently reissued in December 2022, and it continues to require discharger support for risk reduction activities. BACWA is funding risk reduction activities on behalf of its members to comply with this permit provision. For FY25, BACWA has budgeted \$12,500 to support risk reduction activities related to fish consumption.
- Aggregate mercury and PCBs loads have been well below waste load allocations through 2023, the last year for which data have been compiled.
- EPA Method 1668C for measuring PCB Congeners has not been promulgated by EPA. Effluent limitations are based on PCB Aroclors quantified using EPA Methods 625.1 or 608.3.
- In 2017, EPA adopted federal pretreatment program rules requiring dental offices to install dental amalgam separators. The rule is intended to reduce dental office discharge of mercury. The compliance date was in 2020.

- The Regional Water Board plans to designate three new beneficial uses for Bay Area water bodies: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB) and Subsistence Fishing (SUB). Water bodies with these beneficial uses could also be assigned lower mercury objectives.
- The Triennial Review determines the prioritization of <u>Basin Plan</u> amendments, including designation of new beneficial uses. The February 2025 revised draft <u>Triennial Review staff report</u> identified this effort as a high priority.
- BACWA intends to support risk reduction activities related to the new subsistence fishing beneficial use. In 2024, SFEI worked with stakeholders to develop a fish consumption survey for subsistence fishers. BACWA is funding a small pilot project in 2025 related to this fish consumption survey.
- Recent consolidations among contract laboratory providers of PCB analysis via EPA Method 1668C has led to difficulties with electronic reporting. BACWA prepared a <u>guidance document</u> to assist members with reporting, which Water Board staff endorsed.
- In late 2024, EPA proposed a <u>Methods</u> <u>Update Rule</u> that would withdraw the existing analytical methods for Aroclors (PCB mixtures). The Mercury & PCBs permit uses Aroclors for compliance monitoring. However, even if the proposed rule is finalized, there will be no change to monitoring until the Permit is reissued (2027 or beyond).

- Work with members and contract laboratories to implement new guidance on sampling and reporting for PCB congeners analyzed via EPA Method 1668C.
- Work with Regional Water Board staff to understand the potential impact of a withdrawal of the EPA analytical method for PCBs Aroclors.
- Providing funding for one or more community-based organizations to test the fish consumption survey for subsistence fishers. This effort will inform a future large-scale survey effort.
- Continue outreach to dentists BAPPG and BACWA's pretreatment committee. Per federal rules, all dental facilities were required to submit one-time compliance reports by October 2020.
- Continue to track the outcome of the 2024 Triennial Review of the Basin Plan. It is currently scheduled to be considered for adoption in May 2025.

2022 Mercury & PCBs Watershed Permit (Effective Feb. 1, 2023)

BACWA Risk Reduction Materials

Mercury and PCB Load Trends 2013- 2023 Updated June 2024

2024 Triennial Review of the Basin Plan

Planning for Fish Consumption Survey of Subsistence Fishers

BACWA Guidance on PCB Congeners Sampling, Analysis, and Reporting Protocols (October 2024)

EPA Methods Update Rules

STATE WATER BOARD TOXICITY PROVISIONS

- The State Water Board adopted the Statewide Toxicity Provisions in 2021 as state policy for water quality control for all inland surface waters and estuaries. The Provisions establish:
- Use of Test of Significant Toxicity (TST) as statistical method to determine toxicity, replacing EC25/IC25;
- Numeric limits for chronic toxicity for POTWs >5 MGD and with a pretreatment program; smaller POTWs will receive effluent targets and only receive limits if Reasonable Potential is established;
- Regional Water Board discretion on whether to require RPAs for acute toxicity
- For POTWs with Ceriodaphnia dubia as most sensitive species, numeric targets rather than limits were initially in effect until completion of a statewide quality assurance study in December 2023.
- EPA approved the Statewide Toxicity Provisions in May 2023, and they became effective in June 2023. Individual NPDES permits reissued in the San Francisco Bay Region are implementing the Toxicity Provisions and requiring use of the TST for chronic toxicity testing. Reissued permits no longer require acute toxicity monitoring.

- EPA has not yet approved the Alternate Test Procedure for whole effluent toxicity testing. Until the Alternate Test Procedures are approved, the Regional Water Board has advised that dischargers should use the full five-concentration series for all tests, including routine monitoring and Species Sensitivity Screening Studies.
- From 2016 to 2023, agencies 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. Under the Toxicity Provisions, agencies are now required by the provisions to do sensitive species screening once every 15 years.
- The State Water Board collaborated with stakeholders on a special study to improve the quality of Ceriodaphnia dubia testing. Upon completion of the study, the State Water Board compiled <u>resources</u> related to the study for dischargers that plan to use Ceriodaphnia dubia for chronic toxicity monitoring.
- In November 2024, the State Water Board received a report from staff on implementation of the provisions. The report stressed the importance of laboratories being ready to complete 3 chronic toxicity tests within a calendar month, as required when there is a "fail" result.
- In February 2025, the BACWA Permits Committee provided <u>member training</u> on using the TST to interpret test results.

- Conduct toxicity testing using the Statewide Toxicity Provisions. All member agencies with individual NPDES permits reissued after August 2022 have transitioned to the new toxicity testing requirements.
- Plan to conduct a species sensitivity screening to comply with the Toxicity Provisions, which require a study no more than 10 years old be used to determine a "Tier I" species for use in compliance monitoring. The BACWA laboratory committee has compiled some tips related to sensitivity screening studies for member agencies' use.
- Members hiring a contract laboratory to perform testing using Ceridaphnia dubia should utilize the <u>Ceriodaphnia dubia Quality</u> <u>Assurance Guidance</u> <u>Recommendations</u> from the multilaboratory study, including the

laboratory study, including the performance metrics listed in Appendix E of the report. State Water Board Toxicity Page

EPA Approval of Statewide Toxicity Provisions

Ceriodaphnia dubia Study Resources, including link to Quality Assurance Guidance Recommendations

CASA Webinar on Lessons from Ceriodaphnia Study

Lab Committee Tips on Sensitive Species Screening

State Water Board November 2024 Status Report on Implementation of Toxicity Provisions

February 2025 Permits Committee Training on Using the Test of Significant Toxicity (McCampbell Analytical)

CONTAMINANTS OF EMERGING CONCERN (CECS)

- Pharmaceuticals and other trace contaminants of emerging concern (CECs) are ubiquitous in wastewater at low concentrations and have unknown effects on aquatic organisms.
- The San Francisco Bay region has a CECs strategy focusing on monitoring/tracking concentrations of constituents with high occurrence and high potential toxicity. The State Water Board's Pretreatment and CECs Unit is also developing a similar monitoring strategy for use around the state.
- The Regional Water Board has stated that wastewater agencies' voluntary and representative participation in RMP CECs studies is key to avoiding regulatory mandates for CECs monitoring. These studies are informational and not for compliance purposes. BACWA developed a White Paper on representative participation to support facility selection for these studies.

- Bay dischargers are continuing to provide supplemental funding for RMP CECs studies through the NPDES Permit Amendment adopted in 2021 by the Regional Water Board (R2-2021-0028).
- The State Water Board has recently increased its focus on CECs. In April 2023, a State Water Board Science Advisory Panel released a report identifying risk-based and occurrencebased monitoring strategies in aquatic ecosystems. Similar approaches are already in use in the Bay Area by the RMP.
- In the Bay Area, the RMP has designated organophosphate esters (OPEs) and PFAS as CECs of "high" concern.
- CECs of "moderate" concern include alkylphenols and alkylphenol ethoxylates, bisphenols, fipronil and its degradates, imidacloprid, and microplastics. Carbendazim, a preservative used in paints and other products, was added to the "moderate" concern tier in 2024.
- Quaternary Ammonium Compounds (QACs) are one of several classes of chemicals categorized as a "potential concern" due to lack of data. Monitoring studies of Bay water and stormwater are planned in coming years. A report on QACs in wastewater was published by SFEI in 2024.
- In Fall 2024, both the RMP Annual Meeting and the RMP's annual publication, The Pulse of the Bay, focused on CECs in San Francisco Bay.

- Continue to participate in the RMP Emerging Contaminants Workgroup.
- Participate in RMP studies by collecting wastewater samples at member facilities. For 2025, the Emerging Contaminants Workgroup plans to support studies of plastic additives in Bay water and sediment (OPEs, bisphenols, and other plastic additives); QACs in Bay water and sediment; synthetic dyes in Bay sediment, water, wastewater, and stormwater; and several other stormwater-related studies.
- Work with RMP staff to assist with study design for any new studies of CECs in wastewater. In 2024, BACWA updated the <u>white paper</u> on POTW participation in CECs studies. It now includes a summary of recent CECs studies, in addition to updated statistical information about POTWs to assist with future CECs study design.

RMP Emerging Contaminant Workgroup

BACWA CECs White Paper (2024 version)

2021 NPDES Permit Amendment for Monitoring and Reporting

State Water Board CECs webpage

SFEI Report on QACs in Wastewater

The Pulse of the Bay 2024 – Contaminants of Emerging Concern

RMP 2024 Annual Meeting Materials

RMP Report: Contaminants of Emerging Concern in San Francisco Bay – A Strategy for Future Investigations (2024 version)

MICROPLASTICS

- Microplastic pollution is an environmental threat with the potential to impact wastewater disposal and reuse, as well as biosolids end uses.
- Microplastics have been a focus of the RMP in recent years. BACWA has participated in the Workgroup and developed a POTW Fact Sheet. One conclusion of the RMP work is that POTWs contribute much lower microplastic loads than stormwater. As a result, the RMP is focusing future microplastics sampling efforts on stormwater pathways.
- In February 2022, the Ocean Protection Council (OPC) adopted a Statewide Microplastics Strategy that calls for increased water recycling, additional monitoring of wastewater, source control in wastewater, and additional scientific research.
- Ongoing microplastics investigations by the RMP are focused on tire particles in stormwater.

- OPC funded a study of microplastic removal through wastewater treatment processes. The study commenced in 2021 with a pilot study involving BACWA member agency participation. Full-scale sampling and analysis of influent, effluent, and biosolids was completed in 2023, and three BACWA members participated. The study was completed in August 2024 and found overall removal efficiencies between influent and effluent averaged 95% 99%, and 99.9% for primary, secondary, and tertiary treatment, respectively.
- The 2024 California Integrated Report (303(d) List) was adopted by the State Water Board, and the majority of the report was approved by EPA in 2024. The Integrated Report notes that San Francisco Bay is "potentially threatened" by microplastics. Due to data limitations, the Bay was <u>not</u> listed as an impaired water body during this listing cycle.
- Unlike the 2024 Integrated Report, the 2026 Draft California Integrated Report (303(d) List) did not include an assessment of impairment due to microplastics.
- Additional research to improve scientific understanding of microplastics in aquatic ecosystems will be needed to support a future impairment determination for the Bay. The Water Boards and OPC are supporting allocation of funding towards these research efforts.

- Continue to participate in the RMP Microplastics Workgroup.
- Review and share the results of CASA-funded work being completed at the Southern California Coastal Water Research Project (SCCWRP) that is an add-on component to the recently completed OPC microplastics study. The add-on study will assess how well autosampling equipment, typically used by POTWs to collect wastewater samples for monitoring and compliance purposes, may provide representative samples for microplastics.
- Continue tracking State Water Board and Ocean Protection Council actions via the CASA Microplastics Workgroup.

BACWA Microplastics Fact

RMP Microplastics Workgroup

Ocean Protection Council Microplastics Strategy

SCCWRP Report on Microplastics in California Wastewater Treatment Plants (2024)

2024 California Integrated Report / 303(d) List

2026 Draft California Integrated Report / 303(d) List

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

- Per- and polyfluoroalkyl substances (PFAS) are a group of human-made substances that are very resistant to heat, water, and oil. PFAS are used in surface coating and protectant formulations. Common PFAScontaining products are non-stick cookware, cardboard/paper food packaging, water-resistant clothing, carpets, and fire-fighting foam. PFAS in consumer products are a major source of PFAS to POTWs.
- Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS no longer manufactured in the US; however, other types of PFAS are still produced and used in the US.
- All PFAS are persistent in the environment, can accumulate within the human body, and have demonstrated toxicity at relatively low concentrations.
- Potential regulatory efforts to address PFAS focus on drinking water in order to minimize human ingestion of these chemicals, although regulators have also expressed concern about uptake through food, especially fish.
- In 2020, the State Water Board issued an investigative order for POTWs. At that time, BACWA obtained approval to fund and conduct a Regional PFAS Study in lieu of the investigative order.
- In 2021, EPA released a <u>PFAS</u> <u>Strategic Roadmap</u>.

 In 2024, EPA finalized Maximum Contaminant Levels for several PFAS compounds in drinking water. California has not yet adopted the EPA's drinking water limits, although this issue is a 2025 priority of the Division of Drinking Water. Drinking water limits will not be applicable to wastewater discharges to the Bay, but they could be used in NPDES permits for inland dischargers.

- In December 2025, EPA released draft national recommended human health water quality criteria for PFOS, PFOA, and perfluorobutanesulfonic acid (PFBS). If finalized, local regulators could apply these criteria to San Francisco Bay and other inland water bodies for use in NPDES permitting. The draft criteria for PFOS and PFOA are several orders of magnitude lower than measured concentrations in wastewater effluent, measured concentrations in San Francisco Bay, and method detection limits.
- In January 2025, a new EPA administrator was appointed, and EPA has already announced modifications to some portions of the PFAS Strategic Roadmap. The status of previous EPA efforts on source control is now uncertain.
- For example, EPA had previously planned to develop pretreatment standards for industrial users (Metal Finishing, Organic Chemicals, Plastics and Synthetic Fibers, and landfills) and to conduct a nationwide POTW Influent PFAS Study to collect nationwide data on industrial and domestic sources of PFAS.

• BAPPG is developing materials for a public outreach campaign and website content related to PFAS. Materials will be shared with members prior to the April 2025 outreach campaign. BACWA will host a forum to strategize PFAS messaging to regulators pertaining to practical PFAS management.

- Members should use Clean Water Act methods (EPA Method 1633 or 1621) for monitoring effluent, biosolids, or industrial wastewater.
- Develop a sampling plan for the next phase of BACWA's regional PFAS study to support the "PFAS Sources to Solutions" project being led by SFEI and the California Department of Toxic Substances Control. In FY26, BACWA plans to sponsor additional wastewater sampling focusing on sewershed sources of PFAS.
- Review EPA's January 2025 draft risk assessment for PFOA and PFOS in biosolids (see Biosolids page).
- Member agencies are encouraged to support legislative efforts to limit the use of PFAS in consumer products. <u>SB 682 (Allen)</u>, recently introduced for the 2025 California legislative session, would "phase out the sale of products with avoidable PFAS use."

BACWA PFAS Study
Summary

State Water Board PFAS Resources

EPA PFAS Resources

EPA Drinking Water Limits

EPA POTW Influent Study

EPA NPDES Permitting Guidance (Dec. 2022)

Presentation on BACWA's Regional PFAS Study at RMP 2023 Annual Meeting

UC Irvine Report on PFAS in Residential Wastewater

"PFAS Sources to Solutions" Project Overview

Senate Bill 682 (Allen) – Environmental health: Product Safety: PFAS

SANITARY SEWER SYSTEMS GENERAL ORDER

٠

•

- In 2022, the State Water Board reissued the statewide Sanitary Sewer Systems General Order (SSS-WDR). The reissued order replaced the 2006 Order and the 2013 Monitoring and Reporting Program.
- The 2022 SSS-WDR became effective in June 2023 and contains numerous new and modified requirements, such as:
 - A prohibition on discharges to groundwater
 - Reduced spill reporting requirements for small spills (spills from laterals or <50 gallons)
 - New spill monitoring requirements such as photo documentation and faster water quality sampling
 - New requirements for preparation of Sewer System Management Plans (SSMPs), including a focus on system resiliency, prioritizing corrective actions, and coordinating with stormwater agencies
 - Modified annual reporting requirements
 - o New mapping requirements
 - Modified timelines for preparation of audits and SSMPs.

- The first annual reports under the reissued SSS-WDR were due April 1, 2024.
- Due dates for the first audits and SSMPs under the reissued SSS-WDR vary by agency. Audit due dates begin later in 2024, and SSMP due dates begin in 2025. The State Water Board has prepared an <u>online tool</u> to assist agencies in determining compliance dates.
 - Maintaining an updated SSMP continues to be a core requirement of the SSS-WDR. SSMP updates are now required every six years (instead of five) and must contain the 11 updated elements described in the reissued SSS-WDR. BACWA has assisted members by preparing a <u>Guide for</u> <u>Developing and Updating SSMPs</u>, now available through the BACWA and State Water Board websites.
 - In May 2024, BACWA completed a member survey of sewer lateral ordinances in the region. Agencies are using sewer lateral replacement ordinances and incentive programs to address ongoing concerns about infiltration and inflow (I&I).

- Continue to use the Collections System Committee as a forum for discussing best practices for completing audits and SSMPs.
- Continue to coordinate with CASA and CWEA on training opportunities for members to address compliance with new requirements in the 2022 SSS-WDR. The Summit Partners are tentatively planning to host the next virtual workshop on SSS-WDR compliance in Spring 2025.

State Water Board SSS-WDR page

Reissued SSS-WDR (General Order 2022-0103-DWQ), Effective June 5, 2023

Materials from Clean Water Summit Partners Webinars on Reissued SSS-WDR

SSMP and Audit Due Dates Lookup Tool from State Water Board

Guide for Developing and Updating Sewer System Management Plans (2024)

BACWA Private Sewer Lateral Survey Results (2024)

Background Highlights

LABORATORY ACCREDITATION

- In May 2020, the State Water Board adopted new comprehensive regulations for the Environmental Laboratory Accreditation Program.
- Adoption of the new regulations was required by AB 1438, legislation that became effective in 2018.
- The new ELAP regulations replaced the previous state-specific accreditation standards with a national laboratory standard established by The NELAC Institute (TNI).
- Compliance with TNI standards was required beginning January 1, 2024.
- The TNI standards pose a particular challenge to small laboratories, many of which have closed because they cannot economically meet the new standards. This reduction has contributed to significant ELAP fee increases for the remaining laboratories.
- From 2021 to 2024, the BACWA Lab Committee hosted 30 virtual sessions on the TNI standards. Diane Lawver of Quality Assurance Solutions, LLC, provided the training. The training sessions were recorded, and are available to download with a password (available upon request).

• The TNI standards apply to every ELAPcertified laboratory, regardless of certificate expiration date and regardless of location. Some laboratories have not yet been assessed to the TNI standard. Starting January 1, 2024, ELAP will be sending laboratories a written request asking for information about assessment plans and requesting a TNI-compliant Quality Assurance manual.

- For FY25, ELAP restructured its fees to increase fees for large laboratories with more than 500 fields of accreditation.
 Smaller laboratories had no fee increase.
 In March 2025, the State Water Board will begin stakeholder outreach related to FY26 ELAP fees.
- ELAP is now implementing EPA's 2021 Method Update Rule, and advised labs to update any outdated methods by February 2024.
- In April 2024, EPA finalized a routine Methods Update Rule. The BACWA Laboratory Committee has provided member training on changes to Standard Methods affected by this Methods Update Rule, and will provide additional training later in 2025. This Methods Update Rule will be implemented by ELAP at a later date.
- In December 2024, EPA proposed a Methods Update Rule to promulgate EPA Method 1633A for 40 PFAS compounds, EPA Method 1621 for adsorbable organic fluorine, and Method 1628 for 209 PCB Congeners. The action also proposes to withdraw the existing methods for PCB Aroclors.

• Continue to provide member training on the Methods Update Rule finalized in April 2024.

Next Steps for BACWA

- Review the EPA's December 2024 proposed Methods Update Rule to help members understand its potential impact on monitoring for PCBs and PFAS.
- Continue to work through BACWA's Laboratory Committee to support members as they navigate laboratory accreditation under the new TNI standards.
- Publicize training opportunities offered by consultants, ELAP, and others.

State Water Board's ELAP regulations page, including links to timeline and relocation guidance tools

ELAP Implementation of 2021 Method Update Rule

EPA Methods Update Rules

ELAP Fees – Stakeholder Meeting Information

Materials from BACWA TNI Training Sessions 2021-2024 - request password from BACWA staff

11

Background Highlights

BIOSOLIDS

- Regulatory drivers are leading to the phase-out of biosolids used as alternative daily cover (ADC) or disposed in landfills. SB 1383, requiring reductions in the amount of organic material deposited in landfills, went into effect in 2022.
 CalRecycle is the state agency responsible for implementation.
- Local enforcement of SB 1383 began in 2024, and compliance was required by January 1, 2025. Requirements include:
 - Diverted biosolids must be anaerobically digested and/or composted to qualify as landfill reduction.
 - CalRecycle is accepting applications to qualify other specific treatment technologies as landfill reduction (per Article 2 of SB 1383).
 - Local ordinances restricting land application are disallowed.
- While the regulations implementing SB 1383 do not 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.
- The Bay Area Biosolids Coalition (BABC) was formed to find sustainable, cost-effective, allweather options for biosolids management. BABC is a BACWA Project of Special Benefit.

 Jurisdictions that divert organic waste must also procure the end products of diversion, such as biogas, biomethane, and compost (but not biosolids).
 Procurement rules are being phased in over three years (2023 to 2025) and there are interim rules regarding procurement of biogas from POTWs.

- CalRecycle and biosolids stakeholders are continuing to conduct outreach to counties with ordinances that restrict land application of biosolids.
- CalRecycle reviews technologies that may be equivalent to landfill diversion/reduction per Article 2 of SB 1383. CalRecycle has also provided clarification on technologies that already comply with SB 1383, and need not apply under Article 2 (e.g., land application of biosolids that have not been anaerobically digested).
- In 2024, BACWA prepared an updated <u>Biosolids Trends Survey Report</u> for calendar years 2021-2023.
- In early 2025, USEPA released a draft risk assessment for PFOA and PFOS in biosolids. The draft risk assessment estimates human health risks arising from biosolids land application and surface disposal. The assessment considers risks via surface water, ground water, fish consumption, and milk consumption pathways, among others. If EPA determines that regulation of biosolids disposal is needed to reduce risk, this will occur in a future phase.

• Continue to review the draft risk assessment for PFOA and PFOS in biosolids, and consider submitting comments.

Next Steps for BACWA

- If requested, respond to EPA's Influent Study of POTWs, which will also function as a nationwide sewage sludge survey. Facilities larger than 10 MGD may be required to participate in the survey and conduct sampling. EPA had planned to conduct the survey in 2025, but the current status is uncertain due to the change in EPA administration.
- Continue to follow emerging science and regulatory developments regarding PFAS in biosolids, particularly related to EPA's draft risk assessment and CERCLA hazardous waste designations for PFOA and PFOS.
- Engage through CASA and BABC to follow new legislation affecting biosolids processing and disposal.
- Actively work through CASA with State agencies to develop sustainable long-term options for biosolids beneficial use.
- Meet with Air District staff regularly to discuss alignment of state and local regulations that affect biosolids treatment and end uses.

BACWA Biosolids Trends Surveys

Bay Area Biosolids Coalition

CASA White Paper on SB 1383 Implementation

CalRecycle - Short-Lived Climate Pollutant Reduction Strategy

<u>CalRecycle Procurement</u> FAQ (Updated by AB 1985)

SB1383 Article 2 Determination

EPA National Sewage Sludge Survey

12

CLIMATE CHANGE ADAPTATION

- Climate change and water resilience are strategic priorities of both the State Water Board and Regional Water Board.
- In 2019, Governor 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.
- Bay Area coordination occurs through Bay Adapt, the Bay Area Climate Adaptation Network (BayCAN), and other venues.
 BACWA has signed a letter of support for the Bay Adapt Joint Platform.
- In 2022, the State released a Climate Adaptation Strategy, including an updated climate change assessment for the Bay Area region.
- The Regional Water Board is modifying the Basin Plan to address climate change and wetland policy. The changes will occur through multiple Basin Plan amendments
- Shallow groundwater response to SLR is a concern in low-lying Bay Area communities. Information about current and future depth-togroundwater maps is summarized in a January 2023 report now available from Pathways Climate Institute and SFEI.

- In June 2024, the Regional Water Board adopted a <u>Climate Change Basin Plan</u> <u>amendment</u> addressing dredge and fill procedures near the region's shorelines, especially for climate adaptation projects. The amendment is awaiting Office of Administrative Law approval.
- In 2024, the Ocean Protection Council (OPC) adopted updated SLR guidance. Compared to the 2018 version, projections for extreme SLR (i.e., H++ scenario) were removed, and the range of projections has narrowed considerably, especially for 2050.
- In December 2024, the Bay Conservation and Development Commission (BCDC) adopted Sea Level Rise planning guidelines for the Bay Area as part of the Regional Shoreline Adaptation Plan. To comply with SB 272, the Plan requires cities and counties to develop subregional sea level rise adaptation plans by 2034.
- In late 2024, the California Coastal Commission updated its <u>sea level rise</u> <u>policy guidance</u> to conform to OPC's new guidance. The guidance document also contains specific recommendations related to wastewater infrastructure.

- Understand and begin planning to participate in the development of Subregional Shoreline Adaptation Plans. These adaptation plans are required for cities and counties per BCDC's 2024 <u>Regional Shoreline</u> <u>Adaptation Plan</u>; special districts should also participate in their development. Plans are due by 2034.
- Begin using the OPC's updated Sea Level Rise Guidance. Updates to the Coastal Commission's "Critical Infrastructure at Risk" SLR planning guidance are expected to follow.
- Continue to develop webinars on technical topics related to climate change, such as sea level rise projections and changes in precipitation. The BACWA Climate Change Community of Practice will provide a forum to discuss these topics.
- Work with Regional Water Board staff to update and revisit the <u>Climate</u> <u>Change Information Request</u> first sent to NPDES permittees in 2021.
- Continue to work with Regional Water Board and other resource agencies to look for regulatory solutions to encourage wetlands projects for shoreline resiliency.

Regional Water Board Basin Plan Amendment on Climate Change and Aquatic Habitat

SFEI Report on Shallow Groundwater Response (2023)

OPC 2024 Sea Level Rise Guidance

California Coastal Commission Sea Level Rise Policy Guidance Update (Nov. 2024)

California Coastal Commission's Critical Infrastructure at Risk (2021)

BayCAN Funding Tracker

BCDC's Regional Shoreline Adaptation Plan (2024)

Bay Adapt Joint Platform including information about the Regional Shoreline Adaptation Plan

CLIMATE CHANGE MITIGATION

- The California Air Resources Board's (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. The latest Scoping Plan was updated in 2022 targeting carbon neutrality by 2045, including policies addressing:
 - $\circ\,$ Short-lived climate pollutants
- Carbon sequestration on Natural and Working Lands
- Largest emitters (transportation, electricity, and industrial sectors)
- CalRecycle is implementing SB 1383 (Short-Lived Climate Pollutant Reduction) to reduce methane emissions. SB 1383 requires diversion of organic waste from landfills, and re-routing organics from landfills to digesters at POTWs is one way to accomplish this.
- The Bay Area Air District (Air District, formerly known as the Bay Area Air Quality Management District) developed a <u>Clean Air Plan</u> that outlines local strategies to address climate pollutants.
- The Air District proposed the development of Regulation 13 (climate pollutants) targeting methane and nitrous oxide reductions related to organics diversion and management. After a pause of several years, the Air District began revisiting Regulation 13 in 2024.

- CARB has pursued rapid fleet conversion to zero-emission vehicles (ZEVs), including medium and heavy-duty vehicles, through the Advanced Clean Fleet rule.
- In 2024, CARB re-opened the Advanced Clean Fleet regulations to incorporate requirements of AB 1594 by expanding ZEV purchase and daily usage exemptions for public agency utilities. Rulemaking is expected to be complete by early 2025.
- In January 2025, <u>CARB withdrew its waiver</u> requests to EPA for key portions of the Advanced Clean Fleet rule. CARB plans to continue to enforce the State and Local Government Agency Fleets portion of the regulation, pointing to a <u>9th Circuit federal</u> <u>court decision</u> from 2007 as the basis of their legal authority.
- In early 2025, CARB released a streamlined <u>ZEV purchase exemption list</u> identifying vehicles that are not currently available as ZEVs, so no exemption request would be required.
- In addition to pushing for ZEVs, CARB is revising the Low Carbon Fuel Standard to emphasize hydrogen rather than biomethane as a transportation fuel. CARB adopted amendments to the Low Carbon Fuel Standard in November 2024, and they are awaiting review by the Office of Administrative Law.
- In fall 2024, as a first step in revisiting Regulation 13, Air District staff are developing a white paper on anaerobic digesters and potentially associated emissions.

- Support the Air District's development of a white paper on anaerobic digestion by providing applicable information on digestion and associated energy generation infrastructure.
- Continue to track implementation of the Advanced Clean Fleet rule. This includes modifications to the rule that will exempt some traditional utility-specialized vehicles used by public agency utilities, per AB 1594.
 CARB plans to release draft regulatory revisions addressing AB1594 later in 2025. Although CARB plans to enforce the State and Local Government Agency Fleets portion of the regulation, regulatory uncertainty for other portions of the rule could impact ZEV availability.
- Work with PG&E and the Air District to explore options for POTWs to inject biogas into PG&E pipelines under the utility's state-mandated biomethane procurement program.

CARB Climate Change Scoping Plan

CARB Low Carbon Fuel Standard Rulemaking (Updated Jan. 2025)

CARB Advanced Clean Fleet Rule (Updated Jan. 2025)

CARB's ZEV Purchase Exemption List

CARB AB 1594 Information

CalRecycle and SB 1383

Bay Area Clean Air Plan

Bay Area Air District's Regulation 13 for Climate Pollutants

EPA Renewable Fuel Standards

PG&E Procurement

TOXIC AIR CONTAMINANTS

- Regulation 11, Rule 18 (Rule 11-18), adopted in 2017, is the Air District's local effort to protect public health from toxic air pollution from existing facilities, including POTWs.
- Per the Rule, the Air District will conduct site-specific Health Risk Screening Analyses and determine each facility's prioritization score (PS). Health Risk Assessments (HRAs) will be conducted for all facilities with a cancer PS>10 or noncancer PS>1. Facilities verified to be above the threshold will have to implement a Risk Reduction Plan that may include employing Best Available Retrofit Control Technology for Toxics (TBARCT).
- AB 617 (Community Air Protection Program) – requires CARB to harmonize community air monitoring, reporting, & local emissions reduction programs for air toxics and GHGs). POTWs within communities already impacted by air pollution may have to accelerate implementation of risk reduction measures.
- AB 2588 (Air Toxics "Hot Spots" Program) - Establishes a statewide program for the inventory of air toxics emissions from individual facilities, as well as requirements for risk assessment and public notification of potential health risks. 2020 updates expanded compound list from >500 to >1,700.

- In April 2024, the Air District finalized updated Implementation Procedures for Rule 11-18 describing how the Air District will conduct HRAs. It also establishes rules for vendors or contractors to conduct HRAs, if allowed by the Air District. The Air District plans to update the regulation again in 2025.
- To comply with provisions of AB 617 and AB 2588, the wastewater sector has until 2028 to perform a Pooled Emissions Study to update outdated default emission factors for toxic air contaminants. CASA is directing the Pooled Emissions Study with consultant support from Yorke Engineering. 27 BACWA member agencies are participating in the study by providing financial contributions. In FY25, BACWA collected approximately \$500,000 from participating BACWA member agencies to fund the effort. In early 2025, the project team is meeting with CARB and staff from Air Districts across the State to discuss concepts for sampling locations, analytes, and analytical methods. Regulator approval of the study plan is required before sampling can begin.
- Since 2022, Air District staff and BACWA representatives have been meeting about 3-4 times per year to address concerns related to toxic air contaminants and associated rule-making. Workgroup materials are available on the <u>AIR</u> <u>Committee website</u>.
- CARB maintains a <u>list of approved</u> <u>independent contractors</u> for source testing. Using the list may be helpful, but is not required.

• Review and understand the updated Rule 11-18

Implementation Procedures. For most POTWs with a relatively low prioritization score, the HRAs will not occur right away. These POTWs will likely be able to use updated emissions factors from the statewide poled emissions study, as described below. Review and provide comment on proposed rule changes expected later in 2025.

- Report "business as usual" for air toxics through 2028 (through year 2027 data). The wastewater sector has until 2028 to perform the statewide Pooled Emissions Study.
- Continue participating in the BACWA-Air District workgroup to discuss toxic air contaminants, rule development, and related air quality regulatory issues.

Bay Area Air District Facility Risk Reduction Program Updates (Rule 11-18)

Bay Area Air District New Source Review of Toxic Air Contaminants (Rule 2-5)

CARB page on AB 617 and AB 2588 and Final Statement of Reasons

CASA Handout on Pooled Emissions Study

CARB List of Approved Independent Contractors for Test Methods

Timing of Rule 11-18 vs. Process for AB 617

July 2024 BACWA Update to Air District Stationary Source Committee

BACWA AIR Committee website

BEST AVAILABLE CONTROL TECHNOLOGY

- Best Available Control Technology (BACT) is a requirement for major new or modified sources of air pollution.
- BACT is defined locally as part of the Air District's Rule 2-2, "New Source Review." BACT is established based on the most stringent level of emissions control that is achieved in practice and that is technologically feasible & cost effective.
- CARB is working on proposed amendments to the off-road new diesel engine standards, called "Tier 5" rulemaking. The Tier 5 rulemaking aims to reduce oxides of nitrogen (NOx), particulate matter, and may also include first-time carbon dioxide (CO₂) emissions standards.
- In December 2020, the Air District issued a BACT determination for Tier 4 emissions standards for large standby generators (≥ 1,000 bhp). The determination applied retroactively to applications deemed complete after January 1, 2020. The retroactive BACT designation resulted in cost increases and schedule delays for standby generator installations at some BACWA member agencies.
- Based on this experience, BACWA has been working with BAAQMD to provide better notice of future BACT determinations.
- In October 2024, the Air District issued a BACT determination for Tier 4 emissions standards for standby generators > 50 bhp and < 1,000 bhp. The BACT determination is effective as of December 2, 2024 and is not retroactive. Options to comply with the new standards include: (a) an EPAcertified Tier 4 engine, (b) a Tier 4compliant engine that is packaged by the engine manufacturer with abatement equipment, or (c) A lower tier engine that has been retrofitted with after-market abatement equipment to meet Tier 4 standards.
- In October 2024, CARB proposed amendments to the off-road diesel engine emissions standards (Tier 5 rulemaking). A workshop was also held in October 2024.

- Design new or modified standby generators to meet Tier 4 emissions standards.
- Continue to coordinate with CASA to participate in review and public comment on CARB's Tier 5 rulemaking.

Air District BACT/TBACT Workbook

Air District October 2024 Workshop on BACT Determination Slides and Video

CARB Tier 5 Rulemaking

RECYCLED WATER

- Approximately 10 percent of the municipal wastewater of Bay Area POTWs is currently recycled.
 Expansion of recycled water projects is a goal of many BACWA members, but implementation is slowed by high costs and administrative requirements.
- In 2018, the State Water Board adopted uniform water recycling criteria for two types of Indirect Potable Reuse: surface water augmentation and groundwater augmentation.
- In December 2023, the State Water Board adopted uniform water recycling criteria for two types of Direct Potable Reuse: raw water augmentation and treated water augmentation.
- As of 2020, virtually all recycled water in the Bay Area was produced at centralized facilities using municipal wastewater, and was treated to meet standards for nonpotable reuse. There are not yet any Indirect or Direct Potable Reuse projects in the Bay Area, although several are in the planning stage.

- The State Water Board is currently developing standards for onsite treatment and reuse of non-potable water in multifamily, mixed use, and commercial buildings. The rulemaking process for Onsite Non-Potable Reuse is slated to begin in April 2025; once rulemaking begins, it must be completed within one year.
- In June 2023, BACWA completed a Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling, as required by the 2nd Nutrient Watershed Permit.
- In December 2023, the Regional Water Board approved a Basin Plan Amendment that will allow greater flexibility for NPDES permitting of reverse osmosis concentrate discharges to San Francisco Bay. As of August 2024, this Basin Plan Amendment has received all necessary approvals and is now in effect.
- The Direct Potable Reuse regulations were finalized in August 2024 upon approval from the state's Office of Administrative Law. The regulations go into effect October 1, 2024.

- Review draft regulations for Onsite Non-Potable Reuse when they are released by State Water Board staff, which is expected in April 2025.
- Continue to provide members with technical resources related to interagency coordination, such as cost-sharing agreements and permitting. These topics are based on feedback from the September 2023 workshop on interagency collaboration in which wastewater and water agency representatives convened to discuss challenges and opportunities for expanding water recycling in the Bay Area.
- Continue to track the role of recycled water projects in diverting nutrient loads from San Francisco Bay.
 Significant nutrient load reductions and annual reporting on recycled water nutrient load diversions are required by the 2024 Nutrient Watershed Permit (see page 2).
 In spring 2025, BACWA plans to cohost workshop with WateReuse's Northern California chapter that will focus on topics related to nutrient removal and recycled water.
- Track California legislation with potential impacts on recycled water funding, mandates, or regulations.

Water Boards Recycled Water Policy and Regulations

Direct Potable Reuse Regulations

Onsite Nonpotable Reuse Regulations

BACWA Special Studies of Recycled Water and Nature-Based Systems

<u>California's Water Supply</u> <u>Strategy (August 2022)</u>

Basin Plan Amendment affecting Water Recycling (now also incorporated into the Basin Plan)

Previously covered issues with no updates can be found in previous **BACWA** issues summaries.

ACRONYMS

ADC	Alternate Daily Cover	PCB	Polychlorinated Biphenyl
BACT	Best Available Control Technology	PFAS	Per- and Polyfluoroalkyl Substances
BCDC	Bay Conservation and Development Commission	PFHxS	Perfluorohexane Sulfonic Acid
bhp	brake horsepower	PFNA	Perfluorononanoic Acid
CalDPR	California Department of Pesticide Registration	PFOA	Perfluorooctanoic Acid
CARB	California Air Resources Board	PFOS	Perfluorooctane Sulfonic Acid
CASA	California Association of Sanitation Agencies	POTW	Publicly-Owned Treatment Works
CEC	Compound of Emerging Concern	PS	Prioritization Score
CIWQS	California Integrated Water Quality System	QAC	Quaternary Ammonium Compound
CWEA	California Water Environment Association	RMP	Regional Monitoring Program
EC25/IC25	25% Effect Concentration/25% Inhibition Concentration	RPA	Reasonable Potential Analysis
ELAP	Environmental Laboratory Accreditation Program	SF Bay	San Francisco Bay
ELTAC	Environmental Laboratory Technical Advisory Committee	SFEI	San Francisco Estuary Institute
EPA	United States Environmental Protection Agency	SLR	Sea Level Rise
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act	SSMP	Sewer System Management Plan
FY	Fiscal Year	TMDL	Total Maximum Daily Load
GHG	Greenhouse Gas	TIN	Total Inorganic Nitrogen
HFPA-DA	Hexafluoropropylene Oxide (HFPO) Dimer Acid, also known as GenX	TNI	The NELAC Institute
MCL	Minimum Contaminant Level (Drinking Water)	TST	Test of Significant Toxicity
MGD	Million Gallons per Day	WQO	Water Quality Objective
NELAC	National Environmental Laboratory Accreditation Conference	ZEV	Zero-Emission Vehicle
NMS	Nutrient Management Strategy		

OAH Ocean Acidification and Hypoxia

OEHHA Office of Environmental Health Hazard Assessment

OPC Ocean Protection Council

Agenda Explanation East Bay Dischargers Authority Commission Agenda April 17, 2025

ITEM NO. <u>15</u> COMMITTEE PREFERENCE FORM FOR FISCAL YEAR 2025/2026

The Committee Preference form allows Commissioners to indicate their individual preferences for Committee assignments in FY 2025/2026. The incoming Chairperson will consider Commissioner preferences and changes to member agency representatives when appointing Committee members. Committee assignments will be provided at the June Commission meeting. Email completed forms to juanita@ebda.org by Friday, May 23, 2025.

Generally, Committee meetings occur Monday, Tuesday, and Wednesday preceding the Commission. The Commission meeting dates for FY 2025/2026 are as follows:

July 17	November 20	March 19	
August – Not Scheduled	December 18	April 16	
September 18	January 15	May 21	
October 16	February 19	June 18	

Using a scale of 1 to 4 (1 being first choice), please indicate your committee preferences in Table 1.

TABLE 1. COMMITTEE PREFERENCE

Financial Management Committee	
Operations and Maintenance Committee	
Personnel Committee	
Regulatory Affairs Committee	

Complete Table 2 using the following convention:

- 1 = Preferred Time
- 2 = Available if Needed
- 3 = Not Available

TABLE 2. MEETING TIME AND DAY

TIME	MONDAY	TUESDAY	WEDNESDAY
8:00 a.m. to 9:00 a.m.			
9:00 a.m. to 10:00 a.m.			
10:00 a.m. to 11:00 a.m.			
11:00 a.m. to 12:00 p.m.			
12:00 p.m. to 1:00 p.m.			
1:00 p.m. to 2:00 p.m.			
2:00 p.m. to 3:00 p.m.			
3:00 p.m. to 4:00 p.m.			
4:00 p.m. to 5:00 p.m.			

Agenda Explanation East Bay Dischargers Authority Commission Agenda April 17, 2025

ITEM NO. 16 ITEMS FROM THE COMMISSION AND STAFF

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

ITEM NO. 17 ADJOURNMENT