BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

375 - 11th Street, Oakland, CA 94607 Office of the Secretary: (510) 287-0440

Notice of Time Change

PLANNING COMMITTEE
Tuesday, October 8, 2024
9:30 a.m.
Boardroom
375 11th Street
Oakland, CA 94607

Notice is hereby given that the Tuesday, October 8, 2024 Planning Committee meeting of the Board of Directors has been rescheduled from 9:15 a.m. to 9:30 a.m. The meeting will be held in the Administration Building Boardroom at 375 11th Street, Oakland, California.

Dated: October 3, 2024

Rischa S. Cole

Rischa S. Cole
Secretary of the District

W:\Board of Directors - Meeting Related Docs\Notices 2024\10082024_planning_notice_time_change.docx

This page is intentionally left blank.

BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

375 - 11th Street, Oakland, CA 94607 Office of the Secretary: (510) 287-0440

AGENDA
Planning Committee
Tuesday, October 8, 2024
9:30 a.m.
Boardroom
375 11th Street
Oakland, CA 94607

***** Please see appendix for public participation instructions*****

Committee Members: Directors Marguerite Young {Chair}, April Chan and Doug A. Linney

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

DETERMINATION AND DISCUSSION:

1. Water Quality Program Semi-Annual Update – 2024 (Briggs)
2. Backflow Protection Program Update (Yezman)
3. Placer County Water Agency-EBMUD Memorandum of Understanding Amendment No. 4 (Tognolini)

ADJOURNMENT:

Disability Notice

If you require a disability-related modification or accommodation to participate in an EBMUD public meeting please call the Office of the Secretary (510) 287-0404. We will make reasonable arrangements to ensure accessibility. Some special equipment arrangements may require 48 hours advance notice.

Document Availability

Materials related to an item on this agenda that have been submitted to the EBMUD Board of Directors within 72 hours prior to this meeting are available for public inspection in EBMUD's Office of the Secretary at 375 11th Street, Oakland, California, during normal business hours, and can be viewed on our website at www.ebmud.com.

APPENDIX

Planning Committee Meeting

EBMUD Board committee meetings will be conducted in person and via Zoom.
These meetings are recorded and live-streamed.

*Online**
https://ebmud.zoom.us/j/94576194030?pwd=dWZlc3hNU3JNUVBQYmNKWjJSNVZQdz09
Webinar ID: 945 7619 4030
Passcode: 925293

By Phone
Telephone: 1 669 900 6833
Webinar ID: 945 7619 4030
Passcode: 925293
International numbers available: https://ebmud.zoom.us/u/kdmpbwwlg2

*****To familiarize yourself with Zoom, please visit https://support.zoom.us/hc/en-us/articles/201362193-Joining-a-Meeting

Providing public comment - *The EBMUD Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.*

- Each speaker is allotted 3 minutes to speak; the Committee Chair has the discretion to amend this time based on the number of speakers
- The Secretary will track time and inform each speaker when the allotted time has concluded
- Comments on **non-agenda items** will be heard at the beginning of the meeting
- Comments on **agenda items** will be heard when the item is up for consideration
- The Secretary will call each speaker in the order received

In person
- Fill out and submit a blue speaker card which is available in the meeting room

Via Zoom
- Use the raise hand feature in Zoom to indicate you wish to make a public comment https://support.zoom.us/hc/en-us/articles/205566129-Raising-your-hand-in-a-webinar
  - If you participate by phone, press *9 to raise your hand
- When prompted by the Secretary, please state your name, affiliation if applicable, and topic

Submitting written comments or materials
- Email written comments or other materials for the Board of Directors to SecOffice@ebmud.com
- Please indicate the meeting date and agenda item number or non-agenda item topic in the subject of the email. Contact information is optional.
- **Please email by 4 p.m. the day prior to the scheduled regular meeting**; written comments and other materials submitted to the Board of Directors will be filed in the record.

To *observe* the Planning Committee Meeting,
please visit: https://www.ebmud.com/about-us/board-directors/board-meetings/

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 3, 2024

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager

FROM: David A. Briggs, Director of Operations and Maintenance

SUBJECT: Water Quality Program Semi-Annual Update – 2024

SUMMARY

The attached report provides an update on the District's water quality efforts to ensure the delivery of high-quality water to customers. Water quality data for the first six months of calendar year 2024 is summarized in the report. A presentation on the Water Quality Program will be made at the October 8, 2024 Planning Committee meeting.

DISCUSSION

From January 1, 2024 through June 30, 2024, the District met all federal and state drinking water standards and 98 percent of the District's internal goals (124 of 127 goals were met). As in previous updates, levels of three types of disinfection byproducts were higher than District goals. This is explained further in Attachment 1. Tabular data is presented in Attachment 2.

The District continues to monitor developing federal and state regulations related to lead, per- and polyfluoroalkyl substances, fluoride, and other contaminants of concern in drinking water.

CCC:DAB:sd

Attachments: 1. Water Quality Semi-Annual Report 2024
2. EBMUD Water Quality Goals – January 1 through June 30, 2024

This page is intentionally left blank.

ATTACHMENT 1

WATER QUALITY SEMI-ANNUAL REPORT – 2024

This report provides an update on the District's efforts to ensure delivery of high-quality water to its customers for the first six months of calendar year 2024.

From January 1, 2024 through June 30, 2024, the District met all federal and state drinking water standards and 98 percent of the District's internal goals (124 of 127 goals were met). As in previous updates, levels of three types of disinfection byproducts (DBPs) were higher than District goals. In addition to numerical goals and standards, this report covers the District's efforts to minimize potential lead exposure to customers, monitor contaminants of emerging concern, follow current studies regarding fluoride, and prepare for upcoming regulatory changes.

District Water Quality Goals

The District's internal water quality goals are substantially more stringent than federal and state water quality standards.

Chlorinated disinfectant byproducts (DBPs): During the first half of 2024, the District exceeded two internal water quality goals related to chlorinated DBPs. Total trihalomethanes (TTHMs) and five haloacetic acids (HAA5) are regulated DBPs that form when chlorine reacts with natural organic matter in raw water. The District's goals of 40 parts per billion (ppb) for TTHMs and 30 ppb for HAA5 are half of regulatory standards. The District's goal was exceeded in 4 out of 32 individual TTHM samples and 5 out of 32 HAA5 samples. Upcoming capital projects at the water treatment plants (WTPs) should reduce peak concentrations of DBPs.

Chloraminated DBPs: N-nitroso-dimethylamine (NDMA) is one of several nitrosamines that can form when chloramine reacts with organic precursor materials in water. NDMA forms slowly and is typically detected in parts of the distribution system with very long residence times. In the first half of 2024, the District's water quality goal was not met in 2 of 10 individual NDMA samples. The District's goal is set at the Public Health Goal (PHG) because there is currently no regulatory standard for NDMA. The regulatory future of NDMA remains uncertain. The U.S. Environmental Protection Agency (EPA) does not plan to regulate nitrosamines in the near future, but the State Water Resources Control Board (SWRCB) has indicated that it intends to regulate NDMA.

Other Water Quality Issues

The District has several ongoing water quality initiatives to prepare for upcoming regulatory changes or potential threats to water quality.

Perfluoroalkyl and polyfluoroalkyl substances (PFAS)

On April 10, 2024, the EPA finalized new regulations for six PFAS: Perfluorooctanesulfonic acid (PFOS), Perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA) and its ammonium salt (so called "GenX chemicals"), perfluorohexane sulfonic acid (PFHxS), and perfluorobutane sulfonic acid (PFBS).

In chemical and product manufacturing, GenX chemicals are considered a replacement for PFOA, and PFBS is considered a replacement for PFOS. EPA's regulations include Maximum Contaminant Levels (MCLs) for five of these six compounds, along with a Hazard Index (HI) calculation for four of them which attempts to account for the combined and co-occurring levels of these PFAS in drinking water. All public water systems must complete four quarters of initial monitoring for PFAS from all water sources within three years (by 2027), followed by ongoing compliance monitoring. This sampling is separate from the sampling done under the federal Unregulated Contaminant Monitoring Rule 5 (UCMR5). Public water systems have five years (by 2029) to implement solutions that reduce these PFAS levels if monitoring shows drinking water levels exceed the MCLs or HIs. Based on monitoring to date, the District does not expect to need additional water treatment facilities to meet regulations.

Required PFAS Monitoring

In April 2023, the District began collecting samples for 29 different PFAS compounds under UCMR5. These results are reported to the EPA and used in the District's annual Consumer Confidence Report. Each WTP effluent must be sampled quarterly for at least four quarters by the end of 2025. Results are available for four of the five WTPs. One additional quarterly sample is needed from Upper San Leandro (USL) WTP, which has been out of service for construction. All UCMR5 PFAS results to date are below the Method Reporting Levels (MRLs), the lowest level EPA considers reliable. The UCMR5 protocol does not allow quantification below the MRLs which range from 3-7 nanograms per liter (ng/L).

California initiated PFAS monitoring through a series of phased monitoring orders prioritizing monitoring based on vulnerability of each water source to PFAS contamination. The latest phase required quarterly sampling of the Sacramento River, including the Freeport intake. The Freeport sampling began in the first quarter of 2023 and continues quarterly. This monitoring is being conducted in coordination with Sacramento County Water Agency. The local and upcountry watersheds are considered more protected against PFAS contamination and have not been included in the State Board's monitoring orders. All results under the State's monitoring orders to date are below the MRLs.

Additional PFAS Monitoring

To better characterize the sources, additional samples have been collected in the local East Bay watersheds from several creeks that supply San Pablo and USL Reservoirs. Several PFAS compounds have been detected in raw water, some at levels above the new regulatory standards for WTP effluent, likely resulting from stormwater runoff from the cities of Orinda and Moraga. Runoff contribution from other creeks likely dilute these concentrations before water enters treatment plants. Additional raw water sampling is ongoing, and studies have begun to assess potential alternative treatment options if necessary.

San Joaquin County groundwater associated with the District's Demonstration Recharge Extraction and Aquifer Management (DREAM) project was tested for PFAS during January 2022, June 2023 and again in January 2024; no PFAS compounds were detected.

Lead

The District continues to minimize customer exposure to lead in drinking water through careful monitoring of corrosion control in the distribution system and abatement of remaining lead-containing components. Based on regulatory monitoring data, the customer sampling voucher program, school sampling, and other sampling data, lead levels in the District distribution system remain very low.

The customer sampling voucher program continues to be popular with customers. Since inception in early 2017, over 4,200 customers have taken advantage of the offer for a free lead test. Results from these samples continue to be good; 90 percent of sample results are less than one ppb.

State and federal regulations pertaining to lead have become increasingly stringent. Water systems are now required to develop and publish detailed inventories of both the public-side service lines (from the water main to the meter) and private-side service lines to develop a plan and schedule for removal of lead. The District has already removed all lead service lines and is in the process of removing the remaining galvanized steel lines with short connectors made of lead (also known as pigtails or goosenecks). There are approximately 320 such lead-pigtail services left, and replacement of these service lines is expected within the next three years.

Customer-side galvanized service lines formerly connected to a District-side lead service line must be identified. These lines are termed Galvanized Requiring Replacement (GRR) in the inventory. The District has approximately 4,000 of these GRRs and has notified these customers in accordance with the new regulations. In advance of sending letters, District staff conducted an outreach program to cities, counties, and local groups to explain the new requirements and answer questions. This proactive outreach was well received and likely reduced public concerns. Annual re-notification is required until these GRRs are removed. The notification process must be completed by mid-November 2024. The District experienced a 60 percent increase in the number of customers requesting a free lead since it began sending notification letters. The inventory of public- and private-side service lines must be accessible to the public and available online.

In November 2023, the EPA published additional proposed changes to the lead and copper regulations. These proposed rules go farther than the previous rules, requiring replacement of all portions of a lead service line, including the customer portion, regardless of the lead concentrations at customers taps. Further, GRRs are considered equivalent to lead under these proposed rules. Therefore, the 4,000 GRRs in the District's service area would need to be replaced. The District is not required to bear the cost of replacement for customer-side plumbing, including GRRs.

Sampling in the District's service area from customer taps shows that GRRs are not exposing customers to elevated levels of lead. Sets of samples have been collected from 71 customers served by GRRs, five samples per home, in accordance with EPA's new sampling protocol. All 355 samples were less than the detection limit for reporting (DLR) of 5 ppb, and 90 percent were less than the laboratory's detection limit of 0.4 ppb. These results are comparable to, and even

lower than, results from other homes in the service area that don't have GRRs. Data from the District's the lead sample voucher program demonstrate that 90 percent of all samples are 1 ppb or less. These low results are due to the District's proactive removal of the lead service lines years ago and excellent corrosion control. The District will include these results in written communication (along with required EPA language) to allow customers to interpret this low risk.

EPA's new regulations includes several additional actions that are already in place at the District such as inclusion of lead fittings in the inventory, providing no-cost analysis of customer tap samples upon request, provision of filters during disturbance of lead components and follow-up sampling. The District submitted a letter to EPA during the comment period supporting the proposed rule but suggested a regulatory mechanism for reducing customer notification requirements when utilities demonstrate that GRRs are not a source of lead. Similar recommendations were included in comment letters from several other water agencies and industry organizations. EPA expects to finalize the revisions to the lead and copper rules by October 2024.

Microplastics

The State Board continues to develop regulations for microplastics in drinking water as required by Senate Bill 1422. Two analytical methods and sampling protocols have been developed, and several commercial laboratories are developing capacity for this work. The State Board is using a policy handbook to convey the recommended analytical procedures and sampling protocols. A small pilot program, led by the DDW, will be used to sort out the details of the sample collection and analysis. This pilot program will include about 30 water systems, including the District. The pilot effort will be followed by state-wide implementation once the sampling methodologies are established and vetted. All drinking water utilities, beginning with surface water sources, will eventually be required to conduct four consecutive years of microplastics monitoring and share results in their Consumer Confidence Reports.

Fluoride

A federal court decision in September 2024 mandated that the EPA consider regulation of fluoride under the Toxic Substances Control Act (TSCA). Under TSCA, the EPA evaluates chemicals to determine if the public or environment are exposed to unreasonable risks. When unreasonable risks are found, the EPA bans or limits use. The EPA already established an MCL (4.0 mg/L) for fluoride in drinking water under the Safe Drinking Water Act. The impact from the court decision may lead the EPA to reconsider this MCL or impose other restrictions on the use of fluoride.

Some people, particularly pregnant women and children may consume excess fluoride from foods and beverages such as tea, toothpaste, dental floss, and mouthwash, in addition to drinking water. Such cumulative intake of fluoride may exceed safe levels. In 2016, the National Toxicology Program (NTP), part of the National Institutes of Health, conducted an evaluation of fluoride neurotoxicity. The NTP found that there is a "relatively large and consistent body of evidence" of developmental neurotoxicity in humans. The NTP concluded that higher levels of fluoride exposure, such as drinking water with more than 1.5 mg/L are associated with lower IQ

in children. The NTP evaluated total fluoride exposure from all sources, not the health effects of fluoridated drinking water alone. Consequently, the study did not determine if low fluoride levels of 0.7 mg/L in drinking water have a negative effect on the IQ of children. Elimination of fluoride in drinking water may have a disproportionate impact on under-served communities where access to dental care is typically lower.

Staff cannot predict if the EPA will lower the fluoride MCL or ban its use. Fluoride in drinking water has a long history of demonstrated public health benefits. Many substances, including fluoride, are beneficial in small doses but harmful or even toxic at higher doses. The recommended concentration in drinking water is 0.7 mg/L. The District has added fluoride to drinking water since 1976. The decision to add fluoride followed a favorable service area referendum in 1974, and a confirmation vote in 1980. Prior referenda in the service area in 1960 and 1964 did not favor adding fluoride to drinking water.

If the EPA lowers the MCL, changes to California regulations may follow. The California limit, which is presently 2.0 mg/L for all water systems, cannot be less stringent than federal standards. Systems that add fluoride must be in the range of 0.6 to 1.2 mg/L.

The District will continue to add fluoride to drinking water at the lowest dosage allowable (0.7 mg/L) until there is change to regulations and will follow the evolving research and public health recommendations.

EBMUD Water Quality Goals – January 1 to June 30, 2024

Parameter	Units	MCL	PHG	DLR	SMCL	NL	other	Basis	Goal	Status
EPA/State Water Quality Regulations										
Primary (Health Standards)										
Inorganic Chemicals										
Aluminum	ug/L	1000	600	50	200			½SMCL	100	Met
Antimony	ug/L	6	1	6				PHG	1	Met
Arsenic	ug/L	10	0.004	2				PHG	0.004	Met
Asbestos	MFL	7	7	0.2				½MCL	3.5	Met
Barium	ug/L	1000	2000	100				½MCL	500	Met
Beryllium	ug/L	4	1	1				PHG	1	Met
Cadmium	ug/L	5	0.04	1				PHG	0.04	Met
Chromium (total)	ug/L	50		10				½MCL	25	Met
Cyanide	mg/L	0.15	0.15	0.1				½MCL	0.075	Met
Fluoride (source water)	mg/L	2	1	0.1				PHG	1	Met
Hexavalent chromium	ug/L		0.02					PHG	0.02	Met
Mercury	ug/L	2	1.2	1				½MCL	1	Met
Nickel	ug/L	100	12	10				PHG	12	Met
Nitrate + Nitrite Total (as N)	mg/L	10	10					½MCL	5	Met
Nitrate as N [x4.5 for NO3]	mg/L	10	10	0.4				½MCL	5	Met
Nitrite (as N)	mg/L	1	1	0.4				½MCL	0.5	Met
Perchlorate	ug/L	6	1	2				PHG	1	Met
Selenium	ug/L	50	30	5				½MCL	25	Met
Thallium	ug/L	2	0.1	1				PHG	0.1	Met
Organic Chemicals										
Volatile Organic Compounds (VOCs)										
1,1,1-Trichloroethane (1,1,1-TCA)	ug/L	200	1000	0.5				½MCL	100	Met
1,1,2,2-Tetrachloroethane	ug/L	1	0.1	0.5				PHG	0.1	Met
1,1,2-Trichloroethane (1,1,2-TCA)	ug/L	5	0.3	0.5				PHG	0.3	Met
1,1-Dichloroethane (1,1-DCA)	ug/L	5	3	0.5				½MCL	2.5	Met
1,1-Dichloroethylene (1,1-DCE)	ug/L	6	10	0.5				½MCL	3	Met
1,2,4-Trichlorobenzene	ug/L	5	5	0.5				½MCL	2.5	Met
1,2-Dichlorobenzene (o-DCB)	ug/L	600	600	0.5				½MCL	300	Met
1,2-Dichloroethane (1,2-DCA)	ug/L	0.5	0.4	0.5				½MCL	0.25	Met
1,2-Dichloropropane	ug/L	5	0.5	0.5				PHG	0.5	Met
1,3-Dichloropropene (Total)	ug/L	0.5	0.2	0.5				PHG	0.2	Met

Note: District to meet all applicable regulatory requirements at all times.

Compounds highlighted in blue appear more than once in this table.

**Status is either "Met or "Not Met". If goal was not met, number shown is the percent of samples not meeting the goal.*

EBMUD Water Quality Goals – January 1 to June 30, 2024

Parameter	Units	MCL	PHG	DLR	SMCL	NL	other	Basis	Goal	Status
1,4-Dichlorobenzene (p-DCB)	ug/L	5	6	0.5				½MCL	2.5	Met
Benzene	ug/L	1	0.15	0.5				PHG	0.15	Met
Carbon Tetrachloride	ug/L	0.5	0.1	0.5				PHG	0.1	Met
Dichloromethane (Methylene Chloride)	ug/L	5	4	0.5				½MCL	2.5	Met
Ethylbenzene	ug/L	300	300	0.5				½MCL	150	Met
Freon 113 (1,1,2 trichloro 1,2,2 trifluoroethane)	ug/L	1200	4000	10				½MCL	600	Met
Methyl-tert-butyl ether (MTBE)	ug/L	13	13	3	5			½SMCL	2.5	Met
Monochlorobenzene (Chlorobenzene)	ug/L	70	70	0.5				½MCL	35	Met
Styrene	ug/L	100	0.5	0.5				PHG	0.5	Met
Tetrachloroethylene	ug/L	5	0.06	0.5				PHG	0.06	Met
Toluene	ug/L	150	150	0.5				½MCL	75	Met
Trichloroethylene (TCE)	ug/L	5	1.7	0.5				PHG	1.7	Met
Trichlorofluoromethane (Freon 11)	ug/L	150	1300	5				½MCL	75	Met
Vinyl Chloride (VC)	ug/L	0.5	0.05	0.5				PHG	0.05	Met
Xylenes (Total)	ug/L	1750	1800	0.5				½MCL	875	Met
cis-1,2-Dichlorethylene (c-1,2-DCE)	ug/L	6	13	0.5				½MCL	3	Met
trans-1,2-Dichloroethylene (t-1,2-DCE)	ug/L	10	50	0.5				½MCL	5	Met
Synthetic Organic Compounds (SOCs)										
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.2	0.0017	0.01				PHG	0.0017	Met
2,3,7,8-TCDD (Dioxin)	pg/L	30	0.05	5				PHG	0.05	Met
2,4,5-TP (Silvex)	ug/L	50	3	1				PHG	3	Met
2,4-D	ug/L	70	20	10				PHG	20	Met
Alachlor (Alanex)	ug/L	2	4	1				½MCL	1	Met
Atrazine (Aatrex)	ug/L	1	0.15	0.5				PHG	0.15	Met
Bentazon (Basagran)	ug/L	18	200	2				½MCL	9	Met
Benzo(a)pyrene	ug/L	0.2	0.007	0.1				PHG	0.007	Met
Bis(2-ethylhexyl)phthalate (DEHP)	ug/L	4	12	3				½MCL	2	Met
Carbofuran	ug/L	18	0.7	5				PHG	0.7	Met
Chlordane	ug/L	0.1	0.03	0.1				PHG	0.03	Met
Dalapon	ug/L	200	790	10				½MCL	100	Met
Di(2-ethylhexyl)adipate	ug/L	400	200	5				½MCL	200	Met
Dinoseb (DNBP)	ug/L	7	14	2				½MCL	3.5	Met
Diquat	ug/L	20	6	4				PHG	6	Met
Endothall	ug/L	100	94	45				½MCL	50	Met
Endrin	ug/L	2	0.3	0.1				PHG	0.3	Met

Note: District to meet all applicable regulatory requirements at all times.

Compounds highlighted in blue appear more than once in this table.

**Status is either "Met or "Not Met". If goal was not met, number shown is the percent of samples not meeting the goal.*

EBMUD Water Quality Goals – January 1 to June 30, 2024

Parameter	Units	MCL	PHG	DLR	SMCL	NL	other	Basis	Goal	Status
Ethylene dibromide (EDB)	ug/L	0.05	0.01	0.02				PHG	0.01	Met
Glyphosate	ug/L	700	900	25				½MCL	350	Met
Heptachlor	ug/L	0.01	0.008	0.01				½MCL	0.005	Met
Heptachlor Epoxide	ug/L	0.01	0.006	0.01				½MCL	0.005	Met
Hexachlorobenzene	ug/L	1	0.03	0.5				PHG	0.03	Met
Hexachlorocyclopentadiene	ug/L	50	2	1				PHG	2	Met
Lindane (Gamma BHC)	ug/L	0.2	0.032	0.2				PHG	0.032	Met
Methoxychlor	ug/L	30	0.09	10				PHG	0.09	Met
Molinate	ug/L	20	1	2				PHG	1	Met
Oxamyl (Vydate)	ug/L	50	26	20				½MCL	25	Met
PCB's	ug/L	0.5	0.09	0.5				PHG	0.09	Met
Pentachlorophenol (PCP)	ug/L	1	0.3	0.2				PHG	0.3	Met
Picloram	ug/L	500	166	1				PHG	166	Met
Simazine	ug/L	4	4	1				½MCL	2	Met
Thiobencarb	ug/L	70	42	1	1			½SMCL	0.5	Met
Toxaphene	ug/L	3	0.03	1				PHG	0.03	Met
1,2,3-Trichloropropane	ug/L	0.005	0.0007	0.005				PHG	0.0007	Met
Disinfection By-Products (DBPs)										
Bromate	ug/L	10	0.1	1				½ MCL	5	Met
Chlorite	ug/L	1000	50	20				PHG	50	Met
Haloacetic Acids (HAA5)	ug/L	60						½ MCL	30	Not Met
Total Trihalomethanes (TTHM)	ug/L	80						½ MCL	40	Not Met
Radionuclides										
Alpha	pCi/L	15		3				½MCL	7.5	Met
Beta	pCi/L			4			50	Other [1]	25	Met
Radium 226 + 228	pCi/L	5						½MCL	2.5	Met
Strontium-90	pCi/L	8	0.35	2				PHG	0.35	Met
Tritium	pCi/L	20000	400	1000				PHG	400	Met
Uranium	pCi/L	20	0.43	1				PHG	0.43	Met
Microbiological										
%Total Coliforms Positive/Mo.	Organisms/100 ml	5%						Other [2]	0.5%	Met
TCR Tap Total Chlorine Residual	mg-Cl_2/L							Meets Partnership for Safe Water	≥ 0.5 mg-Cl_2/L in ≥95% of routine samples per month	Met
Reservoir Total Chlorine Residual	mg-Cl_2/L							Exceeds Partnership for Safe Water [3a]	≥ 0.5 mg-Cl_2/L in ≥95% of reservoirs per month [3b]	Met
Treatment Techniques										

Note: District to meet all applicable regulatory requirements at all times.

Compounds highlighted in blue appear more than once in this table.

**Status is either "Met or "Not Met". If goal was not met, number shown is the percent of samples not meeting the goal.*

EBMUD Water Quality Goals – January 1 to June 30, 2024

Parameter	Units	MCL	PHG	DLR	SMCL	NL	other	Basis	Goal	Status
Individual Filter Effluent (IFE) Turbidity	NTU							Exceeds Partnership for Safe Water [4]	<0.10 NTU in 99.5% of samples per filter (monthly)	Met
Combined Filter Effluent (CFE) Turbidity	NTU							Exceeds Partnership for Safe Water [4]	< 0.10 NTU in 99.9% of samples per WTP (monthly)	Met
Distribution System Fluoride	mg/L							Other [5]	0.6-1.2	Met
Lead 90th percentile	ug/L		0.2	5			15	½ AL[6]	7.5	Met
Copper 90th percentile	ug/L		300	50			1300	½ AL[7]	650	Met
Langelier Saturation Index (LSI)	unitless							Corrosion Control	-0.5 to 0.75 in 95% WTP effluent samples (annually)	Met
Acrylamide	Dose and %						0.05 % mono -mer by wt. dose not to excee d 1 mg/L	Other [8]	0.05% monomer by wt. dose not to exceed 1 mg/L	Met
Secondary (Aesthetic) Standards										
Aluminum	ug/L	1000	600	50	200			½SMCL	100	Met
Chloride	mg/L				250			½SMCL	125	Met
Color	color unit				15			½SMCL	7.5	Met
Copper	ug/L		300	50	1000			PHG	300	Met
Foaming agents (MBAS)	ug/L				500			½SMCL	250	Met
Iron	ug/L				300		100	Other [9]	100	Met
Manganese	ug/L				50	500	15	Other [9]	15	Met
Methyl tertiary butyl ether (MTBE)	ug/L	13	13	3	5			½SMCL	2.5	Met
Odor threshold	TON				3			SMCL	3	Met
Silver	ug/L				100			½SMCL	50	Met
Specific Conductance	uS/cm				900			½SMCL	450	Met
Sulfate	mg/L				250			½SMCL	125	Met
Thiobencarb	ug/L	70	42	1	1			½SMCL	0.5	Met
Total Dissolved Solids	mg/L				500			½SMCL	250	Met
Turbidity (distribution)	NTU				5			½SMCL	2.5	Met
Zinc	ug/L				5000			½SMCL	2500	Met
Customer Expectations										

Note: District to meet all applicable regulatory requirements at all times.

Compounds highlighted in blue appear more than once in this table.

**Status is either "Met or "Not Met". If goal was not met, number shown is the percent of samples not meeting the goal.*

EBMUD Water Quality Goals – January 1 to June 30, 2024

Parameter	Units	MCL	PHG	DLR	SMCL	NL	other	Basis	Goal	Status
District-caused complaints	Com-plaints/ month						30	Other [10]	30	Met
Emerging Contaminants										
Inorganic Chemicals										
Boron	ug/L			100		1000		NL	1000	Met
Chlorate	ug/L					800		NL	800	Met
Organic Chemicals										
1,2,4-Trimethylbenzene	ug/L					330		NL	330	Met
1,3,5-Trimethylbenzene	ug/L					330		NL	330	Met
Cylindrospermopsin	ug/L						0.7	HA [11]	0.7	Met
Microcyctins	ug/L						0.3	HA [11]	0.3	Met
N-Nitrosodi-methylamine [NDMA]	ng/L		3			10		PHG	3	Not Met
N-Nitrosodiethylamine [NDEA]	ng/L					10		NL	10	Met
Naphthalene	ug/L					17		NL	17	Met

[1] ½ screening level
[2] 1/10th 5% MCL
[3] (a) ≥ 0.5 mg-Cl2/L in ≥95% of routine monthly samples; (b) excludes reservoirs post treatment data
[4] <0.10 NTU 95% of the time
[5] Optimal Fluoride Dose (0.7 mg/L) per 2015 US Public Health Service recommendation
[6] ½ Action Level
[7] ½ Action Level; compliance based on in-home samples.
[8] USEPA Treatment Technique
[9] Based on operational experience
[10] Based on historical data
[11] USEPA Health Advisory Level

Note: District to meet all applicable regulatory requirements at all times.
Compounds highlighted in blue appear more than once in this table.
**Status is either "Met or "Not Met". If goal was not met, number shown is the percent of samples not meeting the goal.*

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 3, 2024

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager CCC

FROM: David A. Briggs, Director of Operations and Maintenance

SUBJECT: Backflow Protection Program Update

SUMMARY

At the March 12, 2024 Planning Committee meeting, staff briefly discussed the *Cross-Connection Control Policy Handbook (CCCPH)*. In December 2023, the California State Water Resources Control Board adopted the CCCPH, which expands existing regulations for cross-connection control. By July 1, 2025, public water systems must develop and submit plans to the Division of Drinking Water (DDW) for approval, describing how they will comply with the new requirements. District staff are working with DDW to identify appropriate means and methods to comply with these new regulations. Given the broadened scope and increased cost for compliance, the Board may consider modifications to District Regulations Governing Water Service regarding fees for cross-connection control. This memorandum provides additional details regarding new requirements for backflow protection. An update will be presented at the October 8, 2024 Planning Committee meeting.

DISCUSSION

The CCCPH includes more stringent requirements for backflow prevention assemblies (BPAs), more frequent site surveys to verify on-site cross-connection hazards, certification of backflow assembly testers and cross-connection control specialists, development of a backflow incident response plan, increased public outreach and education, and increased coordination with local entities.

Residential Customers

Single-family residential services are typically exempt from cross-connection requirements, except for residences with auxiliary water sources on site (e.g., a private well). For these residential services, the District installs, tests, and maintains the BPAs, as guided by Section 26 of the District's Regulations Governing Water Service. There are currently about 4,600 BPAs on residential services that are tested annually and maintained by the District.

In most circumstances, the District bears the cost of this service. Costs are only borne by residential customers when a known cross-connection has been identified (e.g., an irrigation well plumbed into the domestic plumbing).

The new CCCPH may require the addition of a BPA for residences with fire suppression systems and swimming pools. Since 2010, fire sprinklers are required in new and remodeled single-family residences and manufactured homes in accordance with the Uniform Plumbing Code. Approximately 6,000 residential services have been added in the service area since 2010 which may need BPAs. In addition, a preliminary estimate of the number of impacted residences with swimming pools within the District's service area may exceed 10,000.

Installation of BPAs could result in a higher pressure drop and may require upsizing the service lateral or installing a private, inline pump. Installation costs could range from $2,000 to $30,000 each with ongoing annual testing estimated at $250 each year. The cost estimate for single-family residences to comply with new backflow regulations for swimming pools and fire sprinklers could range from $20 million to $300 million.

Moving forward, the District will also need to coordinate with local permitting agencies to ensure that the new requirements are met as part of local building codes for new and remodeled single-family residences. This would substantially lower the burden on the District to monitor and enforce the new requirements.

Backflow Protection for Dedicated Fire Service Laterals

The District added a requirement for installing backflow protection on all dedicated fire service laterals starting in 2019, in compliance with the Uniform Plumbing Code. Staff estimates that there may be up to 4,000 dedicated fire service laterals installed prior to 2019 that may need new or upgraded BPAs. Older backflow prevention devices cannot easily be upgraded with new BPAs. The newer, more protective BPA requires greater pressure to operate, which further reduces downstream pressure in the consumer's side piping. If pressure from the District's distribution system is not adequate to meet fire flow needs with the upgraded BPA, the fire suppression system may not function properly and may require installation of a pump on the consumer's side. Upgrading or modifying an existing dedicated fire service may cost between $30,000 to $60,000. These costs would be borne by the customer pursuant to existing District regulations for dedicated fire service laterals.

Contractor-issued Construction Hydrant Meters

Contractors often temporarily connect to District hydrants through a metered assembly unit to support construction. These devices currently have internal check-valves for backflow prevention. The CCCPH requires a higher level of protection. There are 700 existing construction meters that may need to be retrofitted. The estimated cost to retrofit the hydrant meters is up to $2.5 million.

Re-survey Program

There are more than 62,000 existing commercial services in the District's service area, and about 13,000 have BPAs because of existing regulations. The new regulations require regular re-surveying of services with an identified hazard in addition to the change-of-responsible-party surveys. Re-surveying each account with an identified hazard every one to two years is not feasible, and staff believe it is also not necessary. The District will propose a longer recurrence interval such as every 15 to 30 years. Staff will work with DDW to define the interval of "regular" re-surveys and a protocol for prioritizing survey sites such as high-risk businesses, low-pressure services, and locations that have not been surveyed for a very long time. Depending on discussions with DDW, the adopted frequency of re-surveys will require additional resources. The cost for re-surveys could be recovered through fees imposed under modifications to Section 26 of the District's Regulations Governing Water Service.

FISCAL IMPACT

The fiscal impacts of complying with the new CCCPH requirements are not yet known but may range from $20 million to $300 million for the District unless costs are transferred to the customer under modifications to Section 26 of the District's Regulations Governing Water Service.

NEXT STEPS

Staff will continue to work with DDW to develop cost-effective ways to meet the new requirements. DDW staff have indicated they have some flexibility in interpreting the requirements in the new CCCPH and in the implementation timeline. Staff will report back to the Planning Committee in spring 2025 with information about additional resources that may be needed to fully implement the program as directed by DDW.

Proposed modifications to District regulations and assignment of fees and installation costs will be discussed with the Board during the Fiscal Year 2026/2027 budget process beginning in early 2025.

CCC:CJY:sd

This page is intentionally left blank.

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: October 3, 2024

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager CCC

FROM: Michael T. Tognolini, Director of Water and Natural Resources MTT

SUBJECT: Placer County Water Agency-EBMUD Memorandum of Understanding Amendment No. 4

SUMMARY

In August 2013, the District and Placer County Water Agency (PCWA) executed a memorandum of understanding (MOU) to develop a long-term water transfer project under which the District would purchase 10,000 to 47,000 acre-feet (AF) of PCWA's Sacramento Water Forum Agreement (WFA) environmental releases in dry years. The MOU includes a commitment for the District to cover 20 percent of consulting costs and processing fees and PCWA to cover the remaining 80 percent. The proposed Amendment No. 4 adds $360,000 to the District's share of consulting costs and processing fees, increasing the District's total cost share from $1,319,700 to $1,679,700. The increase is necessary to perform unanticipated work required to complete the Long-term Warren Act Contract with the U.S. Bureau of Reclamation (USBR) and the environmental documentation for PCWA's water rights permit extension and WFA water transfer to the District. This item will be discussed at the October 8, 2024 Planning Committee meeting.

DISCUSSION

The District and PCWA are developing a long-term water transfer project that would enable PCWA to fulfill its WFA commitments to release additional water from its reservoirs in dry years to benefit fisheries in the lower American River. This would also increase water supply reliability for the District by providing additional supplemental supplies that the District can divert at Freeport. When WFA environmental releases are made by PCWA in dry years, the District could purchase 10,000 to 47,000 AF depending on availability once this long-term water transfer project is implemented. This partnership provides a more reliable supplemental supply that helps to meet the District's need for water in droughts.

The parties executed an MOU on August 15, 2013 that outlines the roles, responsibilities, and cost-sharing commitments to develop the project. The MOU provides the District with an exclusive option to negotiate a long-term water transfer agreement and gives the District the first right of refusal in the interim to purchase dry-year transfer water from PCWA through the use of

one-year transfer agreements. The District has purchased a combined total of 37,000 AF of short-term supply from PCWA in 2014, 2015, and 2022.

In accordance with MOU Amendment No. 3, the District agreed to reimburse PCWA 20 percent (up to $1,319,700) of the estimated cost of consulting and processing fees. In the proposed Amendment No. 4, PCWA and the District will share costs of continuing additional work at the same proportion with PCWA paying 80 percent and the District paying 20 percent.

PCWA and the District continue to jointly work with state and federal agencies to complete environmental reviews and secure permits and approvals that are necessary to implement the long-term transfer. Additional hydrodynamic and temperature modeling of the American River is needed to complete the environmental reviews required by USBR to enter into the Long-Term Warren Act Contract that is required to implement the water transfer project. The negotiation with USBR, initiated on October 18, 2023, is taking significantly longer than was originally projected. PCWA has requested an increase of the total project budget from $7,070,000 to $8,870,000 to support additional work required. The proposed Amendment No. 4 requests a $360,000 increase of the District's share of consulting and processing fees from $1,319,700 to $1,679,700.

RECOMMENDATION

Staff recommends supporting the proposed MOU Amendment No. 4, which will be presented to the Board for consideration at its October 22, 2024 meeting. This long-term water transfer project supports the District's Long-Term Water Supply Strategic Plan goal.

CCC:MTT:hma