



**BOARD OF DIRECTORS  
EAST BAY MUNICIPAL UTILITY DISTRICT**

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375 - 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

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**Notice of Time Change**

**PLANNING COMMITTEE  
MEETING**

**10:30 a.m.**

**Tuesday, November 14, 2017**

Notice is hereby given that on Tuesday, November 14, 2017 the Planning Committee Meeting of the Board of Directors has been rescheduled from 9:15 a.m. to 10:30 a.m. The meeting will be held in the Training Resource Center of the Administration Building, 375 - 11th Street, Oakland, California.

Dated: November 9, 2017

A handwritten signature in cursive script that reads "Rischa S. Cole". The signature is written in black ink and is positioned above a horizontal line.

Rischa S. Cole  
Secretary of the District





**BOARD OF DIRECTORS  
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 – 11<sup>th</sup> Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

**AGENDA**

**Planning Committee  
Tuesday, November 14, 2017  
10:30 a.m.  
Training Resource Center**

**(Committee Members: Directors Mellon {Chair}, Linney and Young)**

**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. Update on San Francisco Bay Nutrient Efforts (White)
2. Update of Lead Sampling in K-12 Schools (Briggs)

**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](http://www.ebmud.com).*



## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: November 9, 2017

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: Eileen M. White, Director of Wastewater *Eileen M. White*

SUBJECT: Update on San Francisco Bay Nutrient Efforts

### SUMMARY

Nutrient discharge from municipal wastewater treatment plants (WWTPs) to San Francisco Bay (Bay) continues to be a key area of concern for regulators and for Bay stakeholders. With over seven million people living in the Bay Area, treated wastewater contributes approximately 60 percent of the total nitrogen load to the Bay. If Bay Area WWTPs are required to make nutrient reduction-focused capital upgrades, costs will be in the billions of dollars.

Over the past year, progress has been made to better understand and manage the potential impacts of nutrient enrichment in the Bay. Staff will provide an update on scientific investigations, regional coordination efforts, and the District's perspective at the Planning Committee meeting on November 14, 2017.

### DISCUSSION

#### Nutrient Concerns in the Bay and Regional Efforts

Excessive nutrients (nitrogen and phosphorus) can stimulate the overgrowth of phytoplankton, which then deplete dissolved oxygen and can cause fish kills and other ecosystem impacts. Excess nutrients can also lead to harmful algal blooms (HABs), which produce toxins that are harmful to people and animals.

Although the Bay does not currently seem to be negatively impacted by nutrients, monitoring in recent years suggests that the Bay's historic resilience to nutrient impairment is weakening. To address this growing concern, Bay Area wastewater agencies, regulators, and other stakeholders have been working collaboratively under the Nutrient Management Strategy (NMS) to investigate water quality impacts and develop science-supported nutrient management decisions.

#### Current Status of the Next Nutrient Watershed Permit (2019-2024)

In 2014, a five-year watershed permit was adopted by the San Francisco Bay Regional Water Quality Control Board which requires Bay Area wastewater agencies to conduct effluent nutrient monitoring, investigate treatment optimization opportunities, conduct upgrade studies for nutrient removal, and fund a portion of the NMS Science Program.

Current discussions with regulators indicate that the next permit (2019-2024) is likely to include continued effluent monitoring, a study of regional opportunities for nutrients management through means other than treatment plant upgrades (e.g., wetland enhancement, landscape irrigation recycling), and a significant increase in funding from wastewater agencies for the NMS Science Program (up from \$880,000 per year to approximately \$2,200,000 per year for the five-year permit term). It is not expected that nutrient effluent limits or a nutrient discharge load cap will be included in the next permit.

The additional funding for the NMS Science Program will allow experts at the San Francisco Estuary Institute (SFEI) to significantly advance the understanding of nutrient impacts in the Bay. SFEI will increase monitoring efforts, speed up water quality model development, and conduct various special studies including HAB-focused investigations.

#### District Perspective

The District's Main Wastewater Treatment Plant (MWWTP) discharges a significant amount of nutrients to the Bay, accounting for about 20 percent of the total load from all of the Bay Area WWTPs combined. The water quality model developed by SFEI shows that the MWWTP effluent is efficiently flushed from its Central Bay discharge location to the Pacific Ocean and has a disproportionately small impact on overall Bay nutrient concentrations. Harmful algal species and algal toxins, however, have frequently been detected in the Central Bay, and HABs along the California-Pacific coastline have recently become more prevalent. The impact of nutrients from the Bay on coastal HAB issues is presently unknown.

The District is actively participating in the regional effort to ensure that future nutrient regulations will be based on sound science and will improve water quality in the Bay. The District recently led a regional study which evaluated the nutrient load reduction potential of additional treatment of nutrient-rich "sidestreams" at wastewater plants. This study also included a high-level assessment of watershed-based nutrient credit trading. Nutrient credit trading programs, which function in a similar fashion to cap-and-trade programs for air emissions, have been implemented in other large estuaries (including Long Island Sound and Chesapeake Bay) and have allowed these regions to achieve significant nutrient load reductions in a cost-efficient manner.

#### **NEXT STEPS**

Staff will continue to participate in regional efforts to study the impacts of nutrients on water quality in the Bay, and will develop strategies to proactively address this emerging regulatory issue. Staff will update the Board on both the regional and District nutrient reduction efforts.

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## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: November 9, 2017

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: David A. Briggs, Manager of Water Operations *DB*

SUBJECT: Update of Lead Sampling in K-12 Schools

### INTRODUCTION

Earlier this year the District initiated lead sampling in K-12 schools after new permit requirements were issued by the State Water Resources Control Board, Division of Drinking Water. Following the completion of a summer pilot program, the District began full sampling service implementation in the fall by initiating contact (via letter) with the 549 public and private K-12 schools within the District's service area. An update on the sampling effort will be provided to the Planning Committee on November 14, 2017.

### DISCUSSION

Lead sampling has now been completed at 57 schools, or 10%, of the individual schools in the District's service area. Another 307 schools (60%) are in various stages of planning to accommodate on-site sampling. The majority of these schools are within major unified school districts. For the schools (public or private) that have not yet responded to our outreach letter, staff has begun contacting individual schools by phone. This sampling effort is expected to be active for about two years. Complete sampling progress is summarized in the tables below.

Sampling will be very active during November, particularly in the West Contra Costa Unified School District and Oakland Unified School District. Given the present level of activity, the next quarterly report is expected to reflect significantly higher completion rates.

The District recognizes that water quality sampling may be outside of normal activities for school districts, and accordingly, provides all necessary technical assistance. Each school requires a site-specific testing plan which the District helps complete to accelerate sampling. Further, the District will review any prior sampling performed by the school or district before finalizing the District's sampling plan to maximize efficiency and meaningfulness of the District's results.

Staff is also developing a fact sheet for school contacts (principals, staff, etc.). A draft of this fact sheet information is attached.

Lead Sampling in K-12 Schools					
School District	# K-12 Schools	Sampling Completed	Sampling Active	Sampling Being Scheduled	Awaiting Response
		# Schools	# Schools	# Schools	# Schools

<b>Totals</b>	<b>549</b>	<b>57</b>	<b>55</b>	<b>252</b>	<b>185</b>
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<i>Public Districts/Schools</i>					
Walnut Creek School District	7	7			
San Lorenzo Unified School District	18	18			
Orinda Union	5	5			
Acalanes Union High School District	5	5			
Lafayette SD *	5	5			
Castro Valley Unified *	17	17			
Oakland USD	128		1	127	
West Contra Costa Unified	64		53	11	
Alameda USD	22			22	
Albany USD	6			6	
Berkeley Unified	20			20	
John Swett Unified (Rodeo)	4			4	
Moraga Elementary	4			4	
Piedmont City Unified	8			8	
San Leandro Unified	13			13	
San Ramon Valley Unified	30			30	
Alameda County Office of Education	8				8
Contra Costa County Office Education	5				5
Emeryville Unified	3				3
Hayward Unified	9				9
Mt. Diablo Unified	1				1

\* School buildings which have otherwise met state requirements either through upgraded plumbing or through separate sampling efforts are considered complete.



<b>Lead Sampling in K-12 Schools</b>					
	# K-12 Schools	Sampling Completed	Sampling Active	Sampling Being Scheduled	Awaiting Response
		# Schools	# Schools	# Schools	# Schools
<b><i>Private / Unaffiliated Schools</i></b>					
A Better Chance / CA Autism Foundation	1		1		
The College Prep School	1			1	
Ecole Bilingue De Berkeley	1			1	
Escuela Bilingüe Internacional	1			1	
The Saklan School	1			1	
AIM School, 171 12th Street, Oakland Charter school	1			1	
Roses In Concrete Community School, Oakland	1			1	
Raskob Learning Institute and Day School	1			1	
<b><i>Remaining Private Schools</i></b>	<b>159</b>				<b>159</b>

ARC:DAB:sd

