EBMUD

BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

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

Notice of Time and Location Change

PLANNING COMMITTEE MEETING
Tuesday, August 11, 2020
8:45 a.m.
Teleconference

Notice is hereby given that the Tuesday, August 11, 2020 Planning Committee Meeting of the Board of Directors has been rescheduled from 9:15 a.m. to 8:45 a.m.

Due to COVID-19 and in accordance with the most recent Alameda County Health Order, and with the Governor's Executive Order N-29-20 which suspends portions of the Brown Act, **this meeting will be conducted via teleconference only**. In compliance with said orders, a physical location will not be provided for this meeting. These measures will only apply during the period in which state or local public health officials have imposed or recommended social distancing.

Dated: August 6, 2020

Rischa S. Cole

Rischa S. Cole
Secretary of the District

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BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

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AGENDA
Planning Committee
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Committee Members Doug Linney {Chair}, Lesa R. McIntosh and Frank Mellon will participate via teleconference

Public Participation

***Dial* 855-369-0450 to participate via telephone;**
***Enter* participant pin 49-281-364 # when prompted**

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. ***If you participate via telephone and wish to speak on agenda OR non-agenda items you will be asked to:***

- State your name, affiliation if applicable, and topic
- The Secretary will compile a list of those who wish to make public comment and will call each speaker in the order received
- The Secretary will keep track of time and inform each speaker when his/her allotted time has concluded
- Each speaker will be allotted 3 minutes to speak; the Committee Chair has the discretion to amend this time based on the number of speakers

DETERMINATION AND DISCUSSION:

1.	Los Vaqueros Reservoir Expansion Project Update	(Tognolini)
2.	East Bayshore Recycled Water Project Update	(Tognolini)
3.	Lead Service Lateral Inventory and Replacement Plan Update	(Briggs)
4.	Main Wastewater Treatment Plant Odor Control Program Update	(White)
5.	Information Technology Security Annual Update	(Levine)

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.

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: August 6, 2020

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager CCC

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

SUBJECT: Los Vaqueros Reservoir Expansion Project Update

SUMMARY

The District is evaluating potential participation in Contra Costa Water District's (CCWD) proposed expansion of Los Vaqueros Reservoir with eight other water agencies. The project would expand Los Vaqueros Reservoir from 160 thousand acre-feet (TAF) to 275 TAF (Project). The Project would provide supplemental water supply to the District during droughts and emergencies. The District continues to evaluate water supply, costs, wheeling, and governance aspects of the Project. This item will be presented at the August 11, 2020 Planning Committee meeting.

DISCUSSION

In 2015, CCWD approached the District and other water agencies regarding their interest in a project to expand Los Vaqueros Reservoir to 275 TAF. In 2016, the Board approved the "Principles of Agreement with Contra Costa Water District for Potential Use of Freeport and Los Vaqueros Facilities," and authorized a contribution of $100,000 toward environmental documentation and a Water Storage Investment Program grant application. In 2019, the Board authorized a contribution of $354,129 as part of a Multiparty Agreement (MPA) to finalize environmental documents and complete 50 percent design. The Board was last updated on this Project at the February 2020 Long-Term Water Supply Workshop.

Benefits of the Project to the District

The Project would provide the District additional off-stream storage, supplemental water supply for droughts and emergencies, and increase adaptability to climate change by allowing storage of water when available. In addition, the Project will result in additional environmental flows for the Mokelumne River through gainsharing under the District's Joint Settlement Agreement, while making water supply available for wildlife refuges that are a part of the largest contiguous block of wetlands remaining in California's Central Valley.

Project Partners

Current Project partners include CCWD, EBMUD, Valley Water District, Alameda County Water District, Bay Area Water Supply and Conservation Agency, San Francisco Public Utility Commission, Zone 7 Water Agency, Grasslands Water District, and San Luis Delta Mendota Water Authority.

Project Costs and Near-Term Schedule Drivers

The total Project cost is estimated at $942 million in 2020 dollars; however, in July 2018, the California Water Commission (CWC) awarded CCWD a $459 million grant or about 50 percent of the capital costs of the entire Project. Although the details of cost allocation are still being negotiated, staff has estimated that the District's portion of capital costs for 30 TAF of storage is approximately $70 million after accounting for grant funding and removing elements of the Project that do not involve the District. The Project costs could decrease if the Project obtains Federal grant funding, and could increase if other Project partners drop out.

The CWC requires CCWD to secure the local grant share from the participating agencies by December 31, 2022; otherwise, the grant could be revoked. The Project partners are working to establish a Joint Powers Agreement (JPA) by December 31, 2020, and negotiate and sign service agreements between the JPA and the project partners by December 31, 2021 to facilitate local share requirements by the CWC. A second amendment to the existing MPA is being negotiated to facilitate formation of the JPA, establish service agreements, and continue planning and design of Project facilities.

Additionally, prior to JPA formation, CCWD has asked if the District would commit to provide a temporary source of raw or treated water (i.e., backstop water) to CCWD while the Project is under construction. In lieu of a commitment before the JPA is formed, staff and CCWD have agreed to develop a Memorandum of Understanding (Backstop MOU) to study how the District might be able to provide backstop water without adversely impacting District customers. The table below describes the upcoming agreements needed for the Project.

Document	Estimated Timing	Purpose
Backstop MOU	October 2020	Study how the District might be able to provide backstop water without adversely impacting District customers.
Amendment to MPA	October 2020	Cost sharing agreement between the Project partners for the development of the JPA, service agreements, facility design, and securing the local grant share.
JPA	December 2020	Document establishing the framework for governance of the Project.
Service Agreement	December 2021	Agreements between the JPA and Project partners that are required to demonstrate local grant share to the CWC.

NEXT STEPS

The MPA and Backstop MOU are currently scheduled for Board consideration in late October, while JPA formation is expected to be completed in early December. Staff will continue to update the Board on the Project evaluation and any future developments prior to the late October and early December Board meetings.

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: August 6, 2020

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager

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

SUBJECT: East Bayshore Recycled Water Project Update

SUMMARY

The District implemented the East Bayshore Recycled Water Project (EBRWP) in 2008 to help meet its water recycling goal of delivering 20 million gallons per day (MGD) by 2040 as outlined in the District's Water Supply Management Program 2040 and Updated 2019 Recycled Water Master Plan. This memo provides an update on two EBRWP pilot projects to increase recycled water usage and support future drought response efforts. This item will be presented at the August 11, 2020 Planning Committee meeting.

DISCUSSION

The EBRWP is a multi-phased project at the District's Main Wastewater Treatment Plant (MWWTP). The EBRWP facility treats secondary wastewater effluent with microfiltration and disinfection to produce Title 22 tertiary recycled water allowed for outdoor and indoor non-potable applications, such as landscape irrigation, and industrial and commercial applications. At build-out capacity in 2040, the EBRWP will produce approximately 2.3 MGD. Currently, EBRWP provides 0.2 MGD to customers in Oakland and Emeryville. Future service will include Albany, Berkeley, and Alameda. In addition to the 2.3 MGD of recycled water planned for customers, about 1.7 MGD of recycled water supplies in-plant uses at the MWWTP. Due to its water quality, recycled water is currently only suitable for landscape irrigation which limits the number of customers who can use recycled water.

The pilot projects are planned to improve water quality and evaluate the feasibility of providing recycled water for customers to pick up for residential landscaping.

Water Quality Improvements (WQI) Pilot Study

Improving recycled water quality will increase the opportunities to use recycled water for purposes beyond landscape irrigation such as building cooling systems. In addition, salt and ammonia concentrations in the current recycled water increase to levels that may harm certain plant species. An evaluation of the EBRWP recycled water was conducted in 2018 to investigate options for improving water quality. Recommendations from the study included partially or fully

treating recycled water with reverse osmosis and ion exchange (RO/IX), and assessing waste streams from the District's Adeline and North Interceptors prior to combining with the South Interceptor waste stream. The RO/IX pilot testing results will provide staff with specific design and operational parameters needed to develop recycled water project improvements and ensure successful full-scale implementation. Evaluation of other waste streams will help determine the feasibility of alternative supplies to increase recycled water quality. The pilot study will also evaluate building-scale technologies to allow for recycled water to be used at customer site cooling towers without additional centralized treatment at the MWWTP. The pilot study is scheduled to start in September 2020 and be completed in December 2021.

Recycled Water Fill Station (RFS) Pilot Project

Staff has explored the possibility of a residential recycled water fill station and recently implemented a pilot project at the MWWTP. Participation in the pilot fill station is currently limited to District employees, allowing staff to work out issues before opening to the public in future drought years. The pilot began in July 2020 with 18 staff registered so far. To date the online training and registration, site orientation, and traffic flow are running smoothly.

Participants picking up recycled water and attendants at the pilot program are employing COVID-19 safety precautions including symptom checks, face coverings, and social distancing. Automated hand sanitizer stands are stationed outside the fill station.

In June 2020, staff began seeking agreements with neighboring water retailers to allow EBMUD staff that live in other water service areas to participate in the pilot program. These agreements would expand the geographic area that the EBMUD residential fill station can be used. The RFS pilot will continue through September 2020. If the pilot is successful, the RFS could be available to the public during the next drought.

NEXT STEPS

The WQI Pilot Study consultant agreement will be considered by the Board at its September 8, 2020 meeting. Results of the pilot study, planned for completion in December 2021, will be used to plan full-scale improvements at the EBRWP. Following conclusion of the RFS Pilot, staff will develop a report on usage, and any remaining challenges or issues in implementing a full-scale residential fill station in future drought years.

CCC:MTT:acr

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: August 6, 2020

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager CCC

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

SUBJECT: Lead Service Lateral Inventory and Replacement Plan Update

INTRODUCTION

Legislation enacted in 2016 and 2017 requires the District to develop an inventory and replacement schedule for any lead service laterals or service laterals containing lead components. This memo provides an overview of the effort and the status of the replacement plan. This item will be presented at the August 11, 2020 Planning Committee meeting.

DISCUSSION

State law mandates all water systems in California to develop an inventory of their service lateral materials, specifically focusing on lead content, and submit the inventory to the state. Water providers were also required to provide a replacement schedule for services that contain lead by July 1, 2020. Earlier this year, the State Water Resources Control Board (Water Board) recommended through a separate letter that replacement occur within ten years.

The District has already removed all known lead service laterals. However, the Water Board's definition of a lead service lateral includes service lines that contain fittings or connectors made of lead. This definition is different than the definition in the Federal Lead and Copper Rule. For the District, the impact of the Water Board's requirement is related to the removal of short, leaded connection pieces connected to galvanized steel service laterals. As of July 1, 2020, the District's distribution system contains at least 2,380 such service laterals.

District records do not specify the type of connection pieces used in the construction of a service lateral. Many galvanized steel service laterals used lead connection pieces, but many did not. Therefore, the actual number of galvanized laterals with lead components is likely to be lower. When replacing a galvanized steel service, the District typically removes the entire service lateral and replaces it with copper. Staff has field-verified hundreds of services when records were unclear or incomplete. This field work helped refine the number of remaining galvanized steel services.

While there may be lead components on the galvanized steel services, thousands of customer tap samples confirm lead concentrations are not elevated and do not represent a public health risk. District sampling efforts such as the school sampling program, the compliance sampling conducted under the Lead and Copper Rule, and the District's customer voucher program confirm the very low lead levels. Considering this data, the District's regular service line repair work, and the District's regular pipeline replacement work which will eventually replace these services, the District proposed a 20-year replacement schedule.

The Water Board rejected this proposal and restated its preference for removal within ten years. In addition, the Water Board asked the District to determine which of these types of service lines are connected to schools or childcare centers. There are four childcare centers with suspected lead components. The District notified these facilities and is working to schedule replacement by the end of the year.

On August 4, 2020, staff met with the Water Board to discuss the replacement schedule. The Water Board agreed that replacement during regular work, such as during repairs or pipeline replacement, is appropriate, and asked the District to commit to a particular number of replacements each year. The District committed to track replacements associated with regular work, and to schedule any additional replacements if the agreed annual target is not met. Under this plan, the overall replacement timeline may be up to twenty years. Letters will be sent to each customer with a galvanized steel service lateral with information about the issue and with an offer for lead sampling via the voucher program. Additionally, the District can prioritize replacement based on sample results and whether or not young children reside at the residence. The District will formally propose an alternative compliance schedule and prioritization process by August 31, 2020 and will seek approval from the Water Board.

NEXT STEPS

Replacement progress will be reported as a part of the Water Board's Large Water System Annual Report. The addresses of individual service laterals with assumed lead components have been transmitted to the Water Board and may be published on the Water Board's website. In anticipation of questions from the media or the public, staff will develop educational materials on our high quality water supply and corrosion control program, outline our extensive testing of schools, and explain the pipeline and lateral replacement program. The District will also continue to offer no-cost lead sampling for customers upon request through the voucher program and will target outreach to those customers with galvanized steel laterals.

CCC:DAB:sd

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: August 6, 2020

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager CCC

FROM: Eileen M. White, Director of Wastewater Eileen

SUBJECT: Main Wastewater Treatment Plant Odor Control Program Update

SUMMARY

The District strives to control and minimize odors at the Main Wastewater Treatment Plant (MWWTP) through investment in odor control equipment and technology, good operations and maintenance practices, timely investigation of odor complaints, and community engagement. In Fiscal Year 2020 (FY20), these efforts contributed to the District achieving its Key Performance Indicator (KPI) for the number of odor reports attributable to the MWWTP. Staff will provide an update on odor management and community engagement activities at the Planning Committee meeting on August 11, 2020.

DISCUSSION

The District's Strategic Plan includes an objective to "minimize customer and community impacts from water and wastewater operations" and establishes a KPI of less than or equal to 30 customer odor complaints per year. The District met the KPI in FY20 (14 odor complaints received were attributable to the MWWTP, of which seven had identifiable sources). The seven traceable odors were caused by trucked waste handling and taking large process tanks out of and back into service for operations and maintenance purposes.

Capital Improvement Program Efforts

Over the past 18 years, the District has spent approximately $14 million in capital improvements for odor control at the MWWTP. The District is currently designing a new odor control system for the Fats, Oils, and Grease/High Strength Liquids Receiving Station and the Blend Tanks. The new system will expand capacity to handle the highly odorous air associated with the high strength liquid and solid resource recovery wastes received at the MWWTP. The Integrated MWWTP Master Plan, which is in development, will include recommendations for improved odor management and will guide long-term capital investments for odor control improvements.

Operations and Maintenance Improvements

The District's Odor Management Program Team (Odor Team) continues to identify and implement operational improvements for odor reduction. The Septage Receiving Station is located close to the east fence line of the MWWTP where odors may readily migrate offsite due to prevailing winds. Cameras were installed at the Septage Receiving Station to enable better monitoring of trucked waste deliveries and ensure proper truck venting practices are followed. In addition, the Odor Team made better use of a Laboratory odor tracking system to facilitate quick responses when an odor is first detected by staff. The quick responses and corrective actions have helped reduce potential odor migration as the District's Laboratory is adjacent to the high strength trucked waste receiving station.

Each odor complaint is thoroughly investigated to ascertain the source of the odor. These investigations include site visits and comprehensive evaluations of ongoing activities at the MWWTP. Prompt actions are taken to address the odors when the MWWTP is the likely source, including increasing chemical dosing to mitigate odors or modifying an ongoing activity to reduce potential odor generation. Staff proactively communicates with West Oakland neighbors to provide updates on follow-up actions related to their complaints. These efforts advance our neighbors' understanding and appreciation of the District's diligent focus on odor management.

Community Engagement Activities

In FY20, the Odor Team updated the District's odor control web page with better explanations of potential odor sources at the MWWTP and the District's effort in controlling them. Based on the high search ranking associated with this web page, it provides essential information to our neighbors about the District's odor management efforts.

Staff remains actively engaged with members of the West Oakland community as members of the Assembly Bill 617 West Oakland Community Action Plan (CAP) Steering Committee. The Steering Committee meets monthly via teleconference to review progress made in air pollution reduction strategies. The Steering Committee is currently focused on implementing CAP recommendations. The District also participates in the Port and Freight and Land Use subcommittee meetings because of their focus on issues relevant to the District, including Port of Oakland truck traffic and land development projects near the MWWTP.

NEXT STEPS

Managing odors from the MWWTP remains a District priority. The District strives to be a good neighbor and recognizes that odors from the MWWTP can affect neighbors' quality of life. Staff will continue efforts to reduce potential odors through capital investments, optimized operations and maintenance of existing facilities, and ongoing engagement with the West Oakland community.

CCC:EMW

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: August 6, 2020

MEMO TO: Board of Directors

THROUGH: Clifford C. Chan, General Manager CCC

FROM: Andrew J. Levine, Manager of Information Systems

SUBJECT: Information Technology Security Annual Update

INTRODUCTION

This memo provides an update on the status of information technology (IT) security at the District and the IT security-related efforts planned for Fiscal Year 2021 (FY21). In addition, this memo also provides updates on the District's Industrial Control Systems (ICS) cybersecurity efforts. This information will be presented at the August 11, 2020 Planning Committee meeting.

DISCUSSION

The primary objective of the District's IT Security Division is ensuring the confidentiality, integrity, and availability of information technology systems and data. This includes safeguarding District systems against ever-evolving cyber threats and ensuring critical District business systems are available following a disaster.

Cyber Crime Trends and Security Awareness

Email continues to be the primary attack vector for fraud and malware attacks. Ransomware attacks are ongoing because they continue to be profitable for criminals. Many companies, cities, and agencies have paid large ransoms to regain control of their information systems and data.

Raising employee security awareness is an important tool for blocking malicious activity. New employees take security awareness training. In addition, during FY20, the District conducted phishing awareness tests six times. Employees who failed the phishing tests were assigned additional security awareness training. These tests and trainings appear to be working, as an increasing number of employees are correctly identifying and reporting phishing emails.

IT Vulnerability Assessment

This year, the District's Internal Auditor contracted with a third-party to conduct a vulnerability assessment of the District's business systems and establish a baseline measurement of the Critical Security Controls framework adopted by the District. The final report is currently being

reviewed. Some findings have already been addressed and an overall plan to address the remaining findings will be developed and presented to the Board by November 2020.

Significant IT Projects

The District completed several large IT improvement projects in FY20. The projects included rolling out remote work tools with enhanced multi-factor authentication, completing the Windows 10 rollout, implementing a leading endpoint protection product to prevent malware, replacing the District's primary firewall platform, implementing a centralized log analysis tool, and replacing the network core switches. All of these investments improve the security and resiliency of the District's network and systems.

ICS Cybersecurity

In FY20, the District completed the ICS cybersecurity practices document, participated in a Contra Costa County Civil Grand Jury (CCCCGJ) investigation, and provided an ICS risk and resilience assessment for the District's America's Water Infrastructure Act of 2018 (AWIA) report which includes cybersecurity components. The ICS practices document provides District employees, contractors, and vendors guidelines for ICS cybersecurity. In October 2019, staff presented the District's ICS cybersecurity program to the CCCCGJ as part of an investigation related to AWIA compliance. The CCCCGJ concluded the District has plans in place to protect Contra Costa County's water supply from cyberattacks and meets the new federal requirements required by AWIA.

NEXT STEPS

Significant IT initiatives planned for FY21 include:

- Implement Microsoft Office 365, including Data Loss Prevention features
- Complete Laboratory Information Systems replacement project
- Complete the first phase of the Financial Information System/Materials Management Information System replacement project
- Upgrade Oracle database and system platform
- Complete the plan to address the findings in the Internal Auditor's assessment report
- Implement an update to the ICS cybersecurity Vulnerability Assessment

CCC:AJL:wlj