MINUTES

Tuesday, March 22, 2022

East Bay Municipal Utility District
Board of Directors
375 Eleventh Street
Oakland, California

Special Meeting

President Doug A. Linney called to order the Special Meeting of the Board of Directors at 9:37 a.m. in the Administration Building Boardroom. The Board met in workshop session to receive an update on the long-term water supply.

ROLL CALL

Directors John A. Coleman, Andy Katz, Lesa R. McIntosh, Frank Mellon, William B. Patterson, Marguerite Young, and President Doug A. Linney were present at roll call.

Staff participants included General Manager Clifford C. Chan, General Counsel Derek T. McDonald, Director of Water and Natural Resources Michael T. Tognolini, Senior Civil Engineer Christopher K. Potter, Manager of Water Supply Improvements Linda H. Hu, Senior Civil Engineer Bradley M. Ledesma, Senior Civil Engineer Casey J. LeBlanc, Senior Civil Engineer Florence T. Wedington, Executive Assistant II Robyn S. Johnson, and Secretary of the District Rischa S. Cole.

PUBLIC COMMENT

There was no public comment.

DISCUSSION

- Filed with the Board was a presentation entitled, "Long-Term Water Supply Workshop No. 2," dated March 22, 2022.

General Manager Clifford C. introduced the workshop noting it is a continuation of the Long- Term Water Supply Workshop held on February 22, 2022. Director of Water and Natural Resources Michael T. Tognolini provided an overview of the information presented during the February 22 workshop, highlighted today's workshop goals, objectives and topics which include information in response to questions raised by the Board during the February 22 workshop and introduced the workshop presenters.

Senior Civil Engineer Christopher K. Potter presented information on water supply accounting methods and reporting and highlighted the regulatory bases for the District's raw water supply accounting which include the California Water Code (as amended by Senate Bills 88 and 155) and the Federal Energy Regulatory Commission. The District follows the requirements in Senate Bill 555 and the American Water Works Association's M36 Manual for treated water supply accounting.

Senior Civil Engineer Casey J. LeBlanc reviewed accounting methods for treated water in the District's distribution system which include measuring apparent losses (e.g., meter inaccuracies) and real losses (e.g., leaks on mains) as well as annual water audits to determine real loss volumes from customer consumption and apparent losses. He discussed requirements in Senate Bill 555 which are aimed at reducing distribution system water losses and how real loss performance standards are affected by the State Water Resources Control Board's (SWRCB) model, its policy decisions, and utility inputs. The District must comply with Senate Bill 555 by 2028 and has implemented strategies that include a project to improve the quality of water loss data by replacing water meters for large customers and at District water treatment plants by 2025; actively managing water pressure; proactive leak detection; infrastructure management; and increasing the speed and quality of leak repairs. Next, Mr. LeBlanc reported a District consultant is conducting a business case evaluation for Advanced Metering Infrastructure (AMI). The evaluation will quantify AMI costs, address state and federal funding opportunities, and inform decisions regarding AMI during preparation of the Fiscal Years 2024/2025 budget. The Board asked questions regarding the District's estimate that 44 gallons of water are lost per connection per day. Staff clarified the estimate is currently an average based on total water loss during the year divided by the number of connections in the service area and that the project to replace water meters for large customers and at water treatment plants should assist with obtaining more accurate water loss data.

Manager of Water Supply Improvements Linda H. Hu presented information on the scope of the pilot study testing at the East Bayshore Recycled Water project and dry year unit costs in response to questions from the Board during the February 22 workshop. The pilot study is evaluating recycled water treatment alternatives, salt and ammonia removal, as well as an alternate supply source with a goal to increase the District's recycled water customer base. Final recommendations are scheduled to be available by June 2023 after which the District will implement recommended improvements from the study. There was Board discussion on the pilot and Ms. Hu responded to questions regarding other agencies that have successfully implemented recycled water projects for indoor applications and customers using cooling towers; plans to install additional infrastructure to accommodate additional recycled water customers; and whether the District is currently providing recycled water for any indoor applications. Next, Ms. Hu discussed how the District presents recycled water project costs in every year and dry year unit costs and responded to Board questions on capital cost amortization and whether the District should consider adjusting the assumptions used for long-term water supply planning.

Senior Civil Engineer Bradley M. Ledesma presented information on desalination, the Los Vaqueros Reservoir Expansion project, groundwater projects, and the Bay Area Regional Reliability Partnership.

Desalination – Mr. Ledesma discussed mechanical and thermal desalination technologies and drawbacks from each including brine disposal challenges, energy use, cost, and permitting. He highlighted the unit cost of desalinated water compared to recycled water; and operations and costs for desalination plants in Saudi Arabia, Israel, Australia and the United States, as well as for three local efforts (2021 Antioch Brackish Water Desalination Project; 2017 Marin County Desalination Study; and 2013 Bay Area Regional Brackish Water Desalination Study). There was considerable Board discussion regarding desalination costs. Mr. Ledesma responded to questions regarding the costs for the Marin County study, estimated costs to desalinate brackish water in a dry year, brine disposal costs, other actions the District could consider to lower desalination costs, and analyzing if costs could be reduced if desalination is used every year instead of in dry years only.

- Director Young left the meeting at 10:19 a.m. and returned at 10:23 a.m.

Los Vaqueros Reservoir Expansion Project – Mr. Ledesma provided an update on the District's participation in Contra Costa Water District's (CCWD) proposal to expand Los Vaqueros Reservoir from 160 thousand acre-feet (TAF) to 275 TAF. The project would provide a supplemental water supply to the District during droughts and emergencies. The District is a voting member of the Los Vaqueros Reservoir Joint Powers Authority along with seven other agencies (CCWD (with the City of Brentwood); Alameda County Water District; Grasslands Water District; San Luis Delta Mendota Water Authority; San Francisco Public Utilities Commission (with Bay Area Water Supply & Conservation Agency); Santa Clara Valley Water District; and Zone 7 Water District). Total project costs are estimated at $942 million in 2020 dollars; CCWD received a $470 million California Water Commission grant in July 2018. The District's estimated portion of capital costs for 30 TAF of storage is approximately $50 million to $100 million after accounting for grant funding. He reviewed upcoming agreements to be negotiated during the next 1.5 years regarding facility usage; operations and maintenance; and design and construction; and the current schedule for project feasibility review, planning, design, and construction.

Ground Water – Mr. Ledesma reported on the East Bay Plain Subbasin noting the District submitted the Groundwater Sustainability Plan (GSP) for the subbasin to the Department of Water Resources on January 26, 2022. Plans to monitor groundwater quality and levels, surface water and subsidence will fill data gaps to drive future science-based solutions and address stakeholder concerns (e.g., groundwater dependent ecosystems). District implementation costs are estimated at $2.5 million over the next five years. In surplus water years 2017 to 2019, the District recharged the Bayside Groundwater Project with a total of 18 million gallons. New data collected and analyzed as part of implementing the GSP will be used to guide future extractions and/or expansions of Bayside. Next, he provided a status update on the Demonstration Recharge Extraction Aquifer Management Project. The project is to establish the feasibility of providing up to 1,000 acre-feet of Mokelumne River water from EBMUD to convey through the North San Joaquin Water Conservation District South System surface water distribution facility to farmers for irrigation in place of groundwater pumping. EBMUD would extract up to 500 acre-feet of the banked supplies for its customers during dry years. Mr. Ledesma said the necessary infrastructure has been constructed and start up testing is scheduled to start in about two weeks.

Bay Area Regional Reliability (BARR) Partnership – Mr. Ledesma reviewed three Shared Water Access Program pilots, the participants, and the pilots' purpose. The District is working with the BARR partners to develop a framework that will facilitate future water transfers and exchanges. The final report is expected by January 2023.

The Board thanked staff for providing information in response to questions raised during the February 22 workshop and provided comment on the information presented today. The Board requested the following:

- Evaluate opportunities to expand recycled water projects after the East Bayshore Recycled Water Project pilot study is completed
- Evaluate the assumptions used for long-term water supply planning
- Evaluate dry year versus every year projects to determine if the District could really "use" a project every year
- Evaluate new desalination technologies (i.e., technologies used by a San Leandro company to remove salt and at Lawrence Livermore National Laboratory)

- Evaluate other potential sources of water (e.g., stormwater) and water conservation efforts (e.g., dry toilets and grey water)
- Provide additional details on the City of Antioch's pre-1914 water rights
- Provide an apples-to-apples comparison (e.g., slide 61) of different water supply projects
- Provide information on Slide 66 in the same format as the information on Slide 61
- Consider issues or potential impacts due to changes in recycled source water quality over time (e.g., reduction in inflow and infiltration)

ADJOURNMENT

President Linney adjourned the Special Meeting at 10:49 a.m.

SUBMITTED BY:

Rischa S. Cole

Rischa S. Cole, Secretary of the District

APPROVED: April 12, 2022

Doug A. Linney, President of the Board

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