



**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, August 11, 2015
9:15 a.m.**

**Training Resource Center
(Committee Members: Directors McIntosh {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. Recycled Water Drought Update (Sykes)
2. Food Waste Program Update (Horenstein)
3. FY15 Emergency Preparedness and Business Continuity Readiness (Wallis)

ADJOURNMENT:

Disability Notice

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Document Availability

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: August 6, 2015

MEMO TO: Board of Directors

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

FROM: Richard G. Sykes, Director of Water and Natural Resources *Doug / Waller for*

SUBJECT: Recycled Water Drought Update

INTRODUCTION

This memorandum provides an update on recent recycled water project activities and immediate upcoming efforts. An update on the water recycling program will be provided to the Planning Committee on August 11, 2015.

DISCUSSION

As the drought continues, EBMUD is expediting a number of recycled water projects for implementation this year. These projects include expansion of the distribution systems in the San Ramon Valley and East Bayshore recycled water projects, expansion of the recycled water commercial truck program, and start-up of a pilot residential recycled water fill station.

San Ramon Valley Recycled Water Project Expansion. Earlier this year, the District awarded a construction contract for over 3.5 miles of pipeline expansion into the Bishop Ranch business park and surrounding area in San Ramon. This \$5.5 million project was awarded a \$2 million grant from the California Department of Water Resources. Construction began in June 2015 and will be completed by June 2016. As pipeline segments are constructed and put into service, a total of about 40 customer sites will be retrofitted and connected to recycled water. These customer sites include business parks, city parks, a school, a golf course, and street medians. Recycled water will primarily be used for landscape irrigation which will offset the current use of about 400,000 gallons per day of potable water.

East Bayshore Recycled Water Project Expansion. In June 2015, the District awarded a construction contract for approximately a mile of pipeline extension in Emeryville along Shellmound and Christie Avenue. This \$2.8 million project was awarded a \$1 million grant from the California Department of Water Resources. Construction will begin later this summer/early fall and will be completed by late spring/early summer next year. Up to 15 customer sites will be converted and connected to recycled water. These customer sites include shopping centers, hotels, condominiums, apartments and street medians. Recycled water will primarily be used for landscape irrigation which will offset the use of potable water.

Recycled Water Commercial Truck Program Expansion. In addition to existing fill stations in West Oakland and North Richmond, a temporary fill station was installed at the Oakland International Airport in May of 2015. Recycled water is supplied through the San Leandro recycled water project in partnership with the city. About 200,000 gallons per day of recycled water will be used in lieu of potable water through December of 2015 for airport construction activities.

In 2014, staff coordinated with Dublin San Ramon Services District to arrange for the developer of the Faria Reserve Project in San Ramon to truck in recycled water for site grading and compaction. Up to 700,000 gallons per day of recycled water will be used for six months, starting later this year.

Another commercial truck fill station is being planned at the City of San Leandro's plant due to increasing demand for recycled water in the area for construction and hardscape washing. Staff is targeting to have the new fill station in service by late August.

Pilot Recycled Water Residential Fill Station. Staff has been planning a pilot recycled water fill station at Point Isabel in Richmond to allow residents to pick up recycled water for watering their yards. The District's Point Isabel wet weather facility was selected as a potential pilot for this year due to availability of the site. The District will need to truck tertiary recycled water from the East Bayshore plant located at the Main Wastewater Treatment Plant (MWWTP) and store the recycled water at Point Isabel.

The MWWTP in West Oakland is not a suitable site in 2015 due to construction activities near the location where a potential residential fill station could be developed. The North Richmond water recycling plant has been experiencing operational issues due to variable water quality in the influent from the West County plant. Staff will be working with West County to resolve secondary effluent water quality issues in order to maximize recycled water production, and will evaluate siting a potential residential fill station at North Richmond in 2016 if the drought continues.

The 2015 pilot at Point Isabel will provide an alternative water supply to residents and an opportunity for residents to better understand the benefits and safe uses of recycled water. It will help build the growing support for recycled water. Many details are being finalized including site preparation, regulatory approval, staffing, training, guidelines, tracking system, outreach, etc. Staff is working toward starting up the pilot residential fill station at Point Isabel this summer. The experience gained can be used toward evaluation and possible development of additional or alternative residential fill stations at North Richmond and West Oakland next year.

Staff had evaluated other potential sites in Lafayette and Alameda, but no suitable locations were identified. Residents east of the hills located in Central Contra Costa Sanitary District's service area can continue to pick up water from a facility in Martinez. If the drought continues into 2016, staff will evaluate developing a residential fill station in West Oakland that can be accessed by Alameda residents.

FISCAL IMPACT

The estimated cost to implement the pilot residential fill station is about \$85,000 in addition to District labor. Incremental pilot costs will be paid from drought contingency funding.

NEXT STEPS

Staff will be accelerating planning of future extensions to the San Ramon Valley Recycled Water Project in anticipation of grant funding from Proposition 1. Priority activities this fiscal year include selecting a site and performing environmental documentation for a new pump station to serve project phases 3 and 4. If drought conditions persist, EBMUD will continue to expand the commercial recycled water truck program and evaluate new residential fill locations in 2016.

RGS:LHH:acr

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: August 6, 2015

MEMO TO: Board of Directors

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

FROM: Bennett K. Horenstein, Director of Wastewater *BH*

SUBJECT: Food Waste Program Update

SUMMARY

The District is continuing to progress toward securing long-term partnerships for the anaerobic digestion of food waste delivered to the Main Wastewater Treatment Plant (MWWTP) for renewable energy production. The District has approved a contract with Waste Management of Alameda County (WMAC) for delivery of commercial food waste from the City of Oakland (City) over a ten-year contract term. In addition, staff is continuing to negotiate a contract with Harvest Power to develop a project with the District that would provide the required preprocessing (i.e., contaminant removal, size reduction) of the material received from WMAC, as well as digested food waste dewatering and compressed natural gas (CNG) production facilities. Staff is also negotiating a long-term contract with Recology for delivery of pre-processed urban organics from San Francisco. Staff will provide a focused update on the Recology project to the Planning Committee on August 11, 2015.

DISCUSSION

Waste Management Contract

On June 23, 2015, the Board approved the WMAC contract for delivery of commercial source-separated organics from the City. An execution copy of the contract has been agreed to by WMAC and the District and is awaiting City approval, which is expected soon. District staff also continues to monitor developments related to the WMAC pricing structure for trash and organics collection and the recent public concerns and protests lodged by local restaurants.

Harvest Power Food Waste Processing Contract

On June 23, 2015, the Board approved a memorandum of understanding (MOU) with Harvest Power to finance, design, construct, and operate food waste processing facilities at the MWWTP. Staff continues to negotiate key financial, technical, operational, and legal contract terms and will keep the Board apprised as the negotiations proceed.

Recology Contract

Staff is negotiating a contract with Recology for delivery of pre-processed urban organics from San Francisco. Distinguished from the source-separated organics that the District will be accepting from Oakland, “urban organics” consist of food waste extracted from the mixed municipal solid waste stream. Recology will be focusing on routes primarily made up of multi-family buildings, whose trash is rich in food scraps. This project requires installation of an organics extrusion press to separate organics from trash at Recology’s site in San Francisco, as well as a polisher system to remove contaminants at the MWWTP. Recology has secured a \$3 million grant from CalRecycle to support the purchase of the press and polisher systems. The grant funds are contingent upon digestion of the organics by the District and would be applied toward installation of both systems. Key contract negotiating points include material quantity, associated tipping fees, and contract term. To better understand the nature of the material, available quantities, and processing costs, the District and Recology plan to begin the project with a pilot period. Staff will provide a detailed presentation on this project, including opportunities and risks at the Planning Committee meeting. Staff anticipates bringing the contract with Recology to the Board for consideration in September.

BKH:JTK:jtk

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: August 6, 2015

MEMO TO: Board of Directors

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

FROM: Michael J. Wallis, Director of Operations and Maintenance *MJW*

SUBJECT: FY15 Emergency Preparedness and Business Continuity Readiness

INTRODUCTION

Policy 7.03 requires the District to create and maintain an active Emergency Preparedness Program to manage its critical functions during an emergency, and to protect people, property and the environment. The policy also requires the District to create and maintain a Business Continuity Program to minimize disruptions of critical business functions and enhance its capability to recover operations. In addition, the 2014 Strategic Plan provides three key performance indicators (KPIs) to measure performance in achieving the District's goals. This memo summarizes the District's readiness and the accomplishments in FY15 to support this policy and to guide the next steps. The report will be discussed at the August 11, 2015 Planning Committee meeting.

SUMMARY

Annually, the District evaluates its Emergency Preparedness and Business Continuity Programs to determine readiness to respond to emergencies. In FY15, the District continued to make significant progress in mitigating risk, preparing for a disaster, and improving its readiness to respond to emergencies. To determine readiness, the District evaluates progress in five areas:

1. Planning: Updated eight Business Continuity Plans (BCPs), revised the Emergency Operations Plan (EOP), and 16 other supporting facility or event specific response plans. The District met all three KPIs for FY15.
2. Training: Provided over 2,168 hours of training employees for emergency preparedness, response and business continuity.
3. Tests and Exercises: Conducted or participated in 42 exercises, tests, and drills.
4. Mitigation: Completed industrial control system vulnerability assessment. Continued disaster recovery planning efforts for information systems and applications. Continued work regarding emergency supplies distribution.

5. Outreach and Coordination: Participated in six emergency preparedness fairs to educate customers and employees and coordinated preparedness efforts with other utilities.

DISCUSSION

A number of hazards can impact the District's critical infrastructure and disrupt business functions. These hazards include earthquake, fire, pandemic, and cyber-attacks. The Emergency Preparedness and Business Continuity Programs include preparing plans, conducting training and exercises, completing mitigation activities, and performing outreach efforts to diminish these hazards. The purpose of these activities is to prepare the District for inevitable emergency and business disruption events. These programs are part of a continuous improvement process which requires periodic review and revision. Activities in the five focus areas are summarized below.

Planning

The District updated the District's EOP and 16 other supporting and event-specific response plans. These plans included nine Site Security Emergency Action Plans and two new plans to support the emergency response activities for the District, and to provide specific guidance for employees at staffed facilities regarding procedures during various emergency and security scenarios. BCPs were updated to incorporate the critical document plans, communication approach, and deployment instructions.

Training

Training provides employees with knowledge of District plans and skills to be prepared to respond in an emergency. Response, business continuity and preparedness training was provided to over 1,000 employees for over 2,168 student hours. As Disaster Services Workers responsible for critical infrastructure and public health, District employees have critical roles to play in emergency response events. The District updated and created new training materials and outreach publications for employees to help clarify roles, responsibilities, and expectations in emergencies.

Exercises and Tests

Exercises and tests provide a chance to validate plans and an opportunity for employees to gain proficiency in response. The District conducted or participated in 42 exercises including those with other agencies and mutual assistance partners. The exercises included a major functional exercise of the EOT, a workshop for the EOT Public Communications Section, functional exercises of alternative work locations, and a functional exercise of the District's emergency declaration process.

Mitigation

Staff completed a vulnerability assessment for industrial control systems. Recognizing the reliance of our business functions on information systems, the District replaced the legacy

software backup system and processes, installed a backup recovery system, and enhanced network connectivity from the Walnut Creek Water Treatment Plant to Sacramento Municipal Utility District (SMUD). Through the reciprocal agreement to share data center space between the District and SMUD, the District has upgraded the alternate data center by adding additional server cabinets at SMUD facilities in Sacramento to improve the District's ability to recover critical business applications after a disaster. Due to limited resources, responding to events, and other priorities, the District was unable to perform testing and further documentation procedures for recovery of information systems. However, a new disaster recovery procedure for a critical application will be developed in FY16.

Outreach and Coordination

District staff participated in emergency fairs held at the Oakland Coliseum, the Cities of Danville and San Ramon combined, and during the Earth Day celebration here at the District, to educate customers and employees regarding the District's programs and how individuals should prepare themselves for emergencies. Staff shared information and best practices for emergency preparedness and business continuity with Las Vegas Valley Water District, Los Angeles Department of Water and Power, Pacific Gas and Electric, Contra Costa Water District, Union Sanitary District, Santa Clara Valley Water District, San Jose Water Company, Union Sanitary District, San Francisco Bay Area Federal Executive Board and San Francisco Public Utilities Commission as well as various associations (American Water Works Association, California Utilities Emergency Association, and Water Research Foundation).

FY15 Events

All the activities above support the District's efforts to respond to and recover from events. For any event that occurs, whether directly impacting the District or not, District staff look for opportunities to learn from each event. Highlighted below are some key lessons learned and key outcomes from FY15 events.

1. During emergency events, many kinds of alerts, warnings, and notifications must be distributed to ensure that consistent, timely, and clear messages are communicated to employees. The District continued to update the standardized message templates, distribution lists, and protocols for distribution of emergency notification messages. In addition, discussions regarding the use and implementation of social media during emergencies have been reviewed and a policy was ratified by the Board in FY15.
2. In response to recent emergencies (e.g., the Glen Echo Creek Response and the Napa Earthquake), the District reviewed key procedures and processes regarding mutual assistance and incident command. Communication, coordination, and reporting initiatives and improvements have been made to address areas for improvement.

By using the information and experience from different events, the District has improved the organization's capabilities and understanding. Lessons learned are captured in business

continuity plans, training, mitigation plans, and procedures. As the programs evolve, the District improves its ability to respond and recover efficiently and effectively.

FY16 Initiatives

In FY16, in addition to routine program management activities, the District will review and update key plans and conduct tests, exercises, and training as outlined below:

1. Planning: Update BCPs for compliance with Strategic Plan KPIs. Update the Business Continuity Program Plan and Site Security Emergency Action Plans for remaining sites.
2. Training: Continue to track compliance with standards for training in emergency response and business continuity for all levels of the organization.
3. Tests and Exercises: Continue conducting routine tests for kiosks, satellite phones, emergency notification system, and Marconi. Conduct BCP exercises for compliance with the Strategic Plan KPIs. Conduct EOT Base Camp Functional Exercise. Conduct an exercise of a critical information system recovery.
4. Mitigation: Continue to harden industrial control systems. Update the physical security vulnerability assessment. Develop a disaster recovery plan for a critical information system. Update the District-wide Alternative Work Location Plan. Develop Earthquake Materials Stores Plan.

FISCAL IMPACT

The District continues to invest in cost-effective business continuity planning and emergency preparedness, and to look for ways to manage costs. Staff will continue to leverage opportunities and purchase orders for critical vendors. In addition, the District will build on existing relationships with other agencies and partners for mitigation strategies and logistics support.

NEXT STEPS

The FY15 program helped promote awareness, identify areas for improvement, and implement mitigation plans that will reduce risk and minimize potential business interruptions. In FY16, staff will continue to report annually on our emergency preparedness and business continuity programs and these initiatives.

ARC:MJW:ss