AGENDA

Planning Committee
Tuesday, May 13, 2014
9:15 a.m.
Training Resource Center

(Committee Members: Directors Foulkes {Chair}, Linney and McIntosh)

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. Panoramic Hill Water System Improvements Update (X. Irias)
2. Update on Food Waste Sourcing (Horenstein)
3. Bay Area Regional Reliability Principles (Sykes)
4. Distribution Valve Maintenance (Wallis)

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.
INTRODUCTION

A large portion of the water distribution system serving the Panoramic Hill neighborhood requires replacement to improve the reliability of the area’s domestic and emergency water service. Specifically, selected pipelines, the University Reservoir, and the University Pumping Plant will be replaced. This project was previously scheduled for discussion at the April 8, 2014 Planning Committee and carried over to the next Committee meeting. This updated memorandum will be discussed at the Planning Committee on May 13, 2014.

DISCUSSION

Background

The Panoramic Hill is a historic residential neighborhood located above the Cal Memorial Stadium in the cities of Berkeley and Oakland as shown in the attached map. The single point of entry to the Panoramic Hill is Panoramic Way. Due to the narrow width of Panoramic Way, traffic is limited to one direction at a time. Given its proximity to open space and its challenging access for the fire department, the Panoramic Hill is the only area in the City of Berkeley with an extreme high fire risk category. The primary stakeholders for this project include the Panoramic Hill and the Berkeley Path Wanderers Associations, as well as the cities of Berkeley and Oakland.

Existing District facilities serving the Panoramic Hill neighborhood include pipelines, a reservoir, and a pumping plant. These facilities are over 50 years old, in poor condition, and in need of replacement. Existing pipelines on Panoramic Hill are located within the cities of Berkeley and Oakland. A majority of these pipelines were installed in the 1940s or earlier, are made of unlined cast iron, and many have a history of leaks. The City of Berkeley is considering repaving a significant portion of the same streets in a few years.

The University Reservoir was constructed in 1963 and the roof is at the end of its useful life. In addition, the reservoir is oversized for its 95 services making water quality management very difficult. The University Pumping Plant was constructed in 1906 as a partially-buried masonry water tank that was later converted to a pumping plant. The 108-year old structure has one-inch wide cracks and the wooden roof is leaking onto the interior electrical equipment.
Project Scope

The Panoramic Water System Improvements Projects includes the following components:

- Pipelines - Approximately 6,800 feet of 6-inch and 8-inch diameter pipe will replace existing 4-inch and 6-inch diameter pipe. Construction of the pipeline replacements will be performed within the cities’ public rights-of-way.
- University Reservoir - The existing 0.5-million gallon (MG) reservoir will be replaced with two 0.09-MG reservoirs.
- University Pumping Plant - The existing 0.2-million gallons per day pumping plant will be replaced with a new pumping plant of the same capacity.

The phasing and scheduling for completion of these project components will be closely coordinated with the City of Berkeley to minimize community disruptions and ensure completion prior to the City of Berkeley’s repaving project.

An additional 3,600 feet of distribution mains, located directly south of the Panoramic Hill neighborhood, will also be replaced as part of this project and prior to the City of Berkeley’s repaving on Dwight Way, Warring Street and Derby Street.

Stakeholder Outreach in Panoramic Hill

Four information and outreach meetings were held with City of Berkeley staff between December 2013 and April 2014. A community meeting was held jointly by the District and the City of Berkeley on April 23, 2014. The community expressed interest and concern with the following key issues: community and emergency vehicle access during pipeline construction, the final location and appearance of the Arden Path staircase (near the new pumping plant), advance and real time communication of road closures and detour notification, parking, and fire flow availability before and after the project.

NEXT STEPS

- A Notice of Exemption for the project will be posted in summer of 2014.
- The construction contracts for the pipelines and University Reservoir are planned to be awarded in the summer of 2015.
- The construction contract for the University Pumping Plant is planned to be awarded in late 2016.
Panoramic Hill - Location Map
DATE: May 8, 2014

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager

FROM: Bennett K. Horenstein, Director of Wastewater

SUBJECT: Update on Food Waste Sourcing

SUMMARY

The District has been pursuing high strength energy producing wastes to expand the District’s Resource Recovery (R2) Program. As regional competition has grown for fats, oil, and grease (FOG) and food processing materials, the District has been working to expand sources and processing of locally generated food waste, the single largest available local high strength material suitable for digestion. Current food waste opportunities are with the Central Contra Costa Solid Waste Authority (CCCSWA), Recology, and the City of Oakland. In support of the District’s pursuit of Oakland’s food waste, staff is evaluating compliance of the District’s food waste processing program with an Alameda County Solid Waste Authority (StopWaste) ordinance. Staff will provide further information on the status of these efforts to the Planning Committee on May 13, 2014.

DISCUSSION

CCCSWA
The CCCSWA serves Danville, Lafayette, Moraga, Orinda, Walnut Creek, and unincorporated areas of Contra Costa County with solid waste services. As described in the April 3, 2014 Board memo, the CCCSWA Board of Directors voted to select a 10-year processing term at $45/ton, with inflation over time, including a clause stating that the contract CCCSWA enters into will not have less favorable terms than other contracts the District enters into for similar feedstock and services. District and CCCSWA staff are currently preparing the contract for consideration by both Boards in June.

Recology
The District has been working with solid waste hauler Recology on food waste processing and digestion since 2006, and the parties signed a contract for lease of land and sourcing and pre-processing of food waste in 2011. In December 2013, the District approved an amendment to the 2011 agreement to allow Recology to process smaller amounts of material on the leased area for a period not to exceed 30 months. Construction on the smaller pilot project, which will process
up to 100 tons per day, has commenced, and processing is anticipated to start by mid-July of this year. Materials that will be processed as part of the pilot include source-separated organics that Recology currently receives from Oakland and off-spec or expired food waste materials requiring de-packaging.

On the full-scale project, Recology has been working on obtaining a full Solid Waste Facilities Permit from the State of California’s solid waste management authority, CalRecycle. Receipt of the final permit is anticipated before the end of 2014. Recology has also identified equipment which has the capability to pre-process a broad range of organic materials and appears to be able to effectively pre-process urban organics - solid waste coming from sources such as apartment buildings which do not have access to green bins and are therefore organic rich. This allows for expansion in the volume of materials available to generate biogas and renewable energy.

City of Oakland
The City of Oakland (City) released a Request for Proposals (RFP) for Zero Waste Services to provide for collection, recycling, and disposal of City solid waste on September 4, 2012. District staff and Board members have been working together to encourage the City to include the District as the processor for the City’s food waste in the new franchise agreements, which will be in place for the next 10 to 20 years. The District has hosted informational tours of the Main Wastewater Treatment Plant (MWWTP) for City Council Members Kalb, McElhaney, Gallo, Kernighan, and Mayor Quan.

In March, a resolution establishing City policy for the waste franchise agreements was passed by the full City Council that included a requirement to review the cost of handling source-separated organics at a local waste to energy facility. As a follow-up to this resolution, District staff has met again with both Waste Management, Inc., and California Waste Solutions, the haulers negotiating agreements with the City, presenting benefits of District processing along with costs and material specifications. District staff also met with City staff to discuss District processing of food waste. City staff conveyed concerns regarding the District’s current practice of directing digested solids to alternative daily cover at landfills. As a result, District staff is evaluating alternative end uses for this material. City staff also raised questions regarding whether District processing of Oakland organic waste complies with StopWaste’s Ordinance 2012-1. District staff is working with StopWaste to better understand the ordinance and their perspective and to ensure there are no compliance issues.

City staff plans to bring forward recommendations to conclude the RFP process and recommend franchise agreements at a Special Meeting of the City Council currently planned for May 29, 2014.
NEXT STEPS

Staff plans to bring the 10-year contract with CCCSWA to the Board for consideration in June. Staff will also update the Board once construction on the Recology pilot is complete and it is operating. Lastly, staff will continue engagement on the City’s RFP process and will keep the Board informed on progress, including issues related to use of digested solids as alternative daily cover and compliance with the StopWaste ordinance.

BKH:JK:sds
DATE: May 8, 2014

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager

FROM: Richard G. Sykes, Director of Natural and Water Resources

SUBJECT: Bay Area Regional Reliability Principles

SUMMARY

Seven of the Bay Area’s largest water suppliers have jointly developed principles for Bay Area Regional Reliability (BARR). The purpose of these principles is to coordinate regional efforts to improve water supply reliability through development of projects with regional benefit. They are intended to foster cooperation without limiting the ability of individual agencies or partnerships to pursue their own projects. Agency governing boards will be asked to consider those principles for adoption during the month of May. These regional principles are similar to the principles that EBMUD and Contra Costa Water District (CCWD) agreed to in January of 2013. The seven agencies have developed a fact sheet (attached) and plan to pursue funding of preliminary studies to identify which projects will provide the greatest regional benefit. A presentation on this effort will be made to the Planning Committee on May 13.

DISCUSSION

In January 2014, the Regional Desalination Project (RDP) partner agencies, which include CCWD, East Bay Municipal Utility District (EBMUD), Santa Clara Valley Water District (SCVWD), San Francisco Public Utility Commission (SFPUC), and the Zone 7 Water Agency (Zone 7), met to review the results of recently completed RDP related studies and discuss next steps. At that meeting it was agreed that before determining next steps for RDP, the group should consider a broader spectrum of water supply reliability efforts. After discussion with the Bay Area Water Agency Coalition (BAWAC), Alameda County Water District (ACWD), Marin Municipal Water District (MMWD) and as an extension of the SFPUC, the Bay Area Water Supply and Conservation Agency (BAWSCA) were included in the BARR discussions.

All seven agencies consider adoption of the principles in the month of May, 2014. Key elements of the principles include:

- Improve Bay Area’s regional water supply and water quality reliability through a regional partnership,
- Maximize the use of existing assets of partner agencies, and if needed, construct new ones to benefit near- and long-term reliability projects,
- Employ equitable cost, risk, and benefit sharing approach, and
- Conduct all work in a transparent, inclusive, mutually beneficial manner
Typical projects to be considered as a part of the BARR effort include water system interties, treatment improvements, and the regional desalination. Specific projects involving EBMUD include interties with Zone 7 and MMWD, regional desalination, and possible addition of pretreatment at the Walnut Creek filter plant to increase EBMUD's conventional water treatment capacity. In addition to new projects, the BARR will consider ways to use available capacity in existing facilities such as the Freeport Regional Water Project and Los Vaqueros Reservoir for regional benefit.

NEXT STEPS

There will be a presentation to the Board Planning Committee on May 13, 2014. The EBMUD Board is scheduled to consider adoption of the Regional Reliability Principles at its May 27, 2014 meeting. Once all of the partner agencies have adopted the principles, agencies will resume the focus on securing either state or federal funding to advance regional studies and projects.

RGS:MTT:acr

Attachment
Improving Bay Area Water Supply Reliability — A Regional Approach

PURPOSE
The Bay Area’s largest water agencies are working together to develop a regional solution to improve the water supply reliability for over 6 million area residents and the thousands of businesses and industries located therein. The Contra Costa Water District, the East Bay Municipal Utility District, Marin Municipal Water District, the San Francisco Public Utilities Commission (with the Bay Area Water Supply and Conservation Agency), the Santa Clara Valley Water District, Zone 7 Water Agency, and the Alameda County Water District have joined forces to leverage existing facilities and, if needed, build new ones to bolster regional water supply reliability.

REGIONAL BENEFITS
The benefits of a regional approach include:

- Enhancing water supply reliability
- Bolstering emergency preparedness
- Addressing climate resiliency needs
- Leveraging existing infrastructure investments
- Facilitating the transfer of water supplies during critical periods of drought or following natural disasters

DESCRIPTION
Each of the Bay Area water agencies have recently completed several multi-million infrastructure projects that, when pooled together as shared resources in times of need, may significantly enhance the regional water supply reliability. These projects include, but are not limited to:

- $920M 185 MGD Freeport Intake by EBMUD to deliver water from the Sacramento River to the Bay Area
- $110M Los Vaqueros expansion project by CCWD providing local storage of 160 TAF
- $100M Middle River Intake project by CCWD to deliver water from the Victoria Canal in the Central Delta
- $20M 30 MGD Hayward Intertie that connects the service area of EBMUD and SFPUC
- $120M investment in Semitropic Groundwater Bank in Kern County providing 565 TAF of storage for SCVWD, Zone 7 and ACWD
- $3M Intertie in Brentwood that connects CCWD to EBMUD
- $11M investment in Cawelo Groundwater Bank in Kern County providing 120 TAF of additional storage for Zone 7
- $23M in Chain of Lakes area to enhance recharge and use of local groundwater storage for Zone 7
- $35M investment in groundwater demineralization to help manage salt in the Livermore Valley Groundwater Basin and facilitate use of recycled water in the Zone 7 service area
- $70M Silicon Valley Advanced Water Purification Center to provide 8 MGD of SCVWD drought-proof supply
- $11M 35 MGD intertie that connects SFPUC to SCVWD

Potential New Investments:

- ACWD-SFPUC Intertie connecting ACWD’s Newark Desalination Facility with SFPUC’s Bay Division Pipeline to provide emergency supplies and water transfer opportunities
- EBMUD-Zone 7 intertie ($25M, EBMUD & Zone 7) that would connect EBMUD’s water delivery system to Zone 7’s, providing potential water sharing and transfer opportunities
- Transfer-Bethany pipeline ($200M, CCWD and regional partners) that would connect the Los Vaqueros Reservoir and CCWD’s and EBMUD’s intakes to the Bethany Reservoir enabling the conveyance of water to the southbay aqueduct
- Regional Desalination Plant ($175M) to supply water to CCWD, EBMUD, SCVWD, SFPUC and Zone 7
- Expansion of the Silicon Valley Advanced Water Purification Center and additional development of SCVWD potable reuse system for regional drought-proof supply
- Construction of several new well fields in the Livermore Valley Groundwater Basin to increase total production capacity to 34 TAF in one year or 108 TAF over a six year period for Zone 7, while also increase exchange opportunities with other agencies
- EBMUD-MMWD intertie ($45M, EBMUD & MMWD) that would connect EBMUD’s water delivery system to MMWD’s providing potential water sharing and transfer opportunities

COSTS
A Feasibility Study could be performed using a portion of the $4M authorized for regional desalination.
DATE: May 8, 2014
MEMO TO: Board of Directors
THROUGH: Alexander R. Coate, General Manager
FROM: Michael J. Wallis, Director of Operations and Maintenance
SUBJECT: Distribution Valve Maintenance

INTRODUCTION

The water distribution system includes over 4,000 miles of pipe, 165 reservoirs, 135 pumping plants, 105 rate control stations and regulators, and approximately 90,000 valves ranging in size from 2 to 108 inches. Valves are the keys to our water distribution system enabling the District to perform required operations and maintenance activities. Valves are necessary to start, stop, and regulate the flow of water to customers, water treatment plants, pumping plants, rate control stations, and regulators. The ability to safely operate valves and isolate sections of the system to perform repairs and complete infrastructure renewals directly affects customers and water outages. In the past, limited valve tracking data have contributed to inadequate customer notifications during water outages, an inaccurate representation of distribution system status, and inefficiencies in managing valve repairs and maintenance. An overview of valve maintenance activity and future plans will be presented at the May 13, 2014 Planning Committee meeting.

DISCUSSION

The Strategic Plan includes goals for limiting and tracking the number and duration of customer water outages per 1,000 customer accounts and in 2014, will establish a new KPI to inspect and maintain 10 percent of all distribution valves annually. When distribution valves are covered or inoperable, the extent of a water shutdown must be expanded to the next operational valve. This means that significantly more customers may be impacted. Water outages are currently tracked in the Shutdown Tracking System based on data from staff manually counting and estimating the number of customers affected by the shutdown using static paper maps.

The District piloted two GIS-based work management software packages for tracking asset status, recording valve exercise data, identifying impacted customers and assets during water outages, and improving work order routing capabilities. The infraMAP® software from iWater Inc., a sole source vendor that integrates infraMAP® with our valve operating equipment for real-time data collection, presented the best overall performance and capabilities. This software includes a pipe isolation tool that automates the identification of the exact valves that need to be operated and the customers impacted during a potential shutdown.
Valve inspections include the location, marking, and servicing of individual valves to allow for easy location in emergencies and operational reliability. Each valve is accessed within the public right-of-way by a utility cover. When inspections and maintenance do not occur, utility covers can become recessed or covered during City paving projects. This condition may create a public hazard to motorists, pedestrians, or bicyclists. The District has incurred liability-related costs for damage resulting from improperly graded utility covers. In addition, when covers are inaccessible, emergency shutdowns can cause damage to property due to delayed control of the discharge.

NEXT STEPS

Board consideration of an agreement to purchase the Oracle enterprise version of the infraMAP® software is scheduled for May 27th. Training will then be expanded to include five crews responsible for valve inspection, maintenance, and repairs using the installed software in the field. Full deployment is planned to be completed by October 2014, and will include customizing the software for water outage tracking and integration with the General Work Order system. Data captured in the field from valve inspections and repairs will be utilized to enhance asset information for replacement and improvement planning, KPI reporting, and mapping.

FISCAL IMPACT

Costs for this software are up to $290,000 in FY15, and $50,000 each year in FY16 and FY17 for annual licensing and maintenance fees. Funds are available in the FY15 budget.

ARC: MJW: ss

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