



- Board of Directors
Engineering and Operations Committee

6/12/2012 Board Meeting

8-6

Subject

Appropriate \$2.35 million; and award \$1,438,442 contract to Steiny and Company, Inc. for the Weymouth Emergency Broadcast System (Approp. 15440)

Description

This action awards a construction contract to rehabilitate the emergency broadcast system at the F. E. Weymouth Water Treatment Plant. The emergency broadcast system is critical to maintain emergency communications in order to protect plant personnel, visitors, and contractors working throughout Metropolitan's La Verne site.

Timing and Urgency

The Weymouth plant utilizes a public address system to broadcast emergency messages throughout the plant and other buildings located at the La Verne site. The original public address system was installed in the 1960s and has been expanded several times, without replacing original equipment components. The system is overtaxed, creating poor and distorted audio quality at nearly inaudible volume levels throughout the site.

Cal-OSHA requires that employee alarms be distinctive and recognizable as a signal to evacuate a work area or to perform actions designated under an emergency action plan. A fully functional emergency broadcast system is needed to meet Cal-OSHA's emergency notification requirements in order to protect plant personnel, visitors, and contractors at the La Verne site.

This project has been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria and is categorized as an Infrastructure Reliability project. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2011/12.

Background

The Weymouth plant was placed into service in 1941 with an initial capacity of 100 million gallons per day (mgd), and was expanded twice to its current capacity of 520 mgd. It delivers a blend of waters from the Colorado River Aqueduct and the State Water Project to Metropolitan's Central Pool portion of the distribution system. Along with the Weymouth plant's treatment facilities, several key support functions are located at the La Verne site. These include Metropolitan's Water Quality Laboratory, Fabrication and Machines Shops, and numerous operation, maintenance, and engineering support services.

The Weymouth plant utilizes a public address system to support day-to-day plant operations and to provide emergency communications. In addition to broadcasting general non-emergency messages, the public address system transmits alarm notifications and general evacuation instructions.

The backbone components of the existing public address system at the Weymouth plant were installed in the 1960s. The original system has been expanded several times to add new speakers during various plant expansions and building additions, but the original equipment components have not been replaced. The current system serves the entire La Verne site, including the treatment plant facilities, the Water Quality Laboratory, maintenance shops, warehouses, and various office buildings. Since the nearly 50-year-old system was not designed to support the

entire site, the existing public address system has become overtaxed and underpowered. This creates poor and distorted audio quality, nearly inaudible volume levels, and a high probability for system failure.

Numerous new facilities have been added to the Weymouth plant in recent years. Due to the limited capacity of the existing public address system, the recently added facilities were built with stand-alone public address systems which are not fully integrated into the plant-wide system. Upgrade of the plant's public address system and integration with the newer stand-alone systems are needed to provide a functional plant-wide system and to have sufficient capacity to support future planned facilities at the site.

Cal-OSHA requires that a notification method be installed to fulfill the requirement of an emergency response plan; public address systems are an acceptable notification method. The evacuation procedures established in Metropolitan's Emergency Action Plan for the Weymouth plant require that emergency and evacuation messages be announced over the public address system. Furthermore, the public address system has been identified in the plant's Hazardous Materials and Hazardous Waste Contingency Plan as "the primary means of notifying plant site personnel and visitors of emergency situations." Rehabilitation of the public address system will also enhance the plant's operational efficiency.

There are currently a total of 213 public address speakers and horns at the Weymouth plant, within the Water Quality Laboratory, and at various shop and office buildings throughout the La Verne site. A recent evacuation drill revealed that the existing public address system cannot broadcast understandable evacuation messages to numerous areas throughout the site. While each of the speakers at the Water Quality Laboratory is functional, only 15 percent of the speakers in other buildings and 17 percent of the outside speakers are fully functional. The shortcomings are due to the overloaded and antiquated nature of the existing system. These deficiencies cannot be corrected unless the existing system is expanded and upgraded.

In October 2010, Metropolitan's Board authorized final design phase activities for expansion and upgrade of the Weymouth plant's public address system to provide clear and reliable broadcasting of notifications and evacuation instructions throughout the plant. Final design has been completed, and staff recommends award of a construction contract at this time.

Weymouth Emergency Broadcast System Rehabilitation – Construction (\$2,350,000)

The planned work includes upgrading the existing Central Control Unit in the Administration Building to provide the needed public address system capacity; supplementing the existing speakers to provide plant-wide coverage; adding local interface modules at new facilities; and connecting fiber-optic lines between the Central Control Unit and all plant facilities.

Specifications No. 1697 for the Weymouth Emergency Broadcast System Rehabilitation project was advertised for bids on March 23, 2012. As shown in [Attachment 2](#), two bids were received and opened on May 1, 2012. The low bid from Steiny and Company, Inc., in the amount of \$1,438,442, complies with the requirements of the specifications. The second bid was \$1,463,000, while the engineer's estimate was \$1,330,000. Staff believes the difference between the engineer's estimate and the two bids reflects the bidders' assessment of risk in handling hazardous materials when performing work in the older buildings. For this contract, Metropolitan has established a Small Business Enterprise participation level of at least 20 percent of the total bid amount. Steiny and Company has committed to meet this level of participation.

This action appropriates \$2.35 million and awards a \$1,438,442 contract to Steiny and Company, Inc. to rehabilitate the existing emergency broadcast system at the Weymouth plant. In addition to the amount of the contract, the appropriated funds include \$115,900 for Metropolitan force construction support for routing of conduits, system shutdowns, and testing of the new system. The appropriated funds also include \$234,800 for construction inspection; \$98,100 for review of submittals and preparation of record drawings; \$92,900 for hazardous waste monitoring, project controls, and project management; and \$369,858 for remaining budget.

Metropolitan staff will perform inspection of the construction contract. For this project, the anticipated cost of inspection and support is approximately 15 percent of the total construction cost. Engineering Services' goal for inspection of projects with construction cost less than \$3 million is 9 to 15 percent. The total construction cost of this project is estimated to be \$1,554,342. The anticipated inspection cost is at the upper end of the range due to

the long construction duration, the extensive interface required between this work and other ongoing construction contracts and the plant's operating facilities, and the expected level of monitoring required for hazardous materials when working in the older buildings.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2011/12 capital expenditure plan. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, and [Attachment 3](#) for the Location Map.

The Emergency Broadcast System Rehabilitation project is included within capital Appropriation No. 15440, the Weymouth Improvements Program - Phase 2, which was initiated in fiscal year 2006/07. Other projects authorized under Appropriation No. 15440 include the filter outlet chemical trench and conduit repairs; and a pilot project to rehabilitate the plant's filters. With the present action, the total funding for Appropriation No. 15440 will increase from \$7,972,000 to \$10,322,000.

Project Milestone

June 2013 – Completion of construction of the Weymouth Emergency Broadcast System

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed project involves the funding; final design; and minor alterations, reconstruction or replacement of existing public facilities along with the construction of minor appurtenant structures with no expansion of use and no possibility of significantly impacting the physical environment. In addition, the proposed project involves minor modifications in the condition of land, water, and/or vegetation which does not involve removal of healthy, mature, scenic trees. Accordingly, the proposed action qualifies under Class 1, Class 2, Class 3, and Class 4 Categorical Exemptions (Sections 15301, 15302, 15303, and 15304 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under four Categorical Exemptions (Class 1, Section 15301; Class 2, Section 15302; Class 3, Section 15303; and Class 4, Section 15304 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Appropriate \$2.35 million; and
- b. Award \$1,438,442 contract to Steiny and Company, Inc. to rehabilitate the Weymouth Emergency Broadcast System.

Fiscal Impact: \$2.35 million of capital funds under Approp. 15440

Business Analysis: This option will enable the Weymouth plant to meet current regulations for emergency communications at the La Verne site.

Option #2

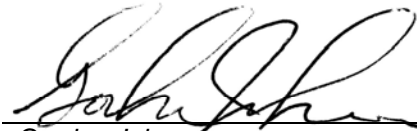
Do not award the contract and re-advertise in an attempt to receive more favorable bids.

Fiscal Impact: Unknown

Business Analysis: This option may or may not result in a lower bid, and would delay completion of the emergency broadcast system rehabilitation at the Weymouth plant to meet current regulatory requirements.


Staff Recommendation

Option #1



Gordon Johnson
Manager/Chief Engineer,
Engineering Services

5/21/2012
Date



Jeffrey Lightlinger
General Manager

5/29/2012

- [Attachment 1 – Financial Statement](#)
- [Attachment 2 – Abstract of Bids](#)
- [Attachment 3 – Location Map](#)

Financial Statement for Weymouth Improvements Program – Phase 2

A breakdown of Board Action No. 14 for Appropriation No. 15440 for the Weymouth Emergency Broadcast System Rehabilitation project¹ is as follows:

	Previous Total Appropriated Amount (Mar. 2012)	Current Board Action No. 14 (June 2012)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 905,500	\$ -	\$ 905,500
Final Design	1,604,593 ²	-	1,604,593
Owner Costs (Program mgmt)	1,141,500	92,900	1,234,400
Submittals Review & Record Drwgs	-	98,100	98,100
Construction Inspection & Support	359,300	234,800	594,100
Metropolitan Force Construction	361,700	109,900	471,600
Materials & Supplies	463,000	-	463,000
Incidental Expenses	56,800	6,000	62,800
Professional/Technical Services	889,000	-	889,000
Equipment Use	2,500	-	2,500
Contracts	2,015,691	1,438,442	3,454,133
Remaining Budget	172,416 ²	369,858	542,274
Total	\$ 7,972,000	\$ 2,350,000	\$ 10,322,000

Funding Request

Program Name:	Weymouth Improvements Program – Phase 2		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15440	Board Action No.:	14
Requested Amount:	\$ 2,350,000	Capital Program No.:	15440-I
Total Appropriated Amount:	\$ 10,322,000	Capital Program Page No.:	330
Total Program Estimate:	\$ 139,772,000	Program Goal:	I- Infrastructure & Reliability

¹ The total amount expended to date on the Weymouth Emergency Broadcast System Rehabilitation project is approximately \$320,000.

² Includes previous reallocation of \$395,000 from Remaining Budget to Final Design for the Filter Outlet Chemical Trench System project to relocate an electrical duct bank and two chemical injection points to support the planned relocation of the chlorine injection point; and \$31,093 from Remaining Budget to Final Design for the Raw Water Bypass Line project. Both changes were necessitated by differing site conditions.

The Metropolitan Water District of Southern California

Abstract of Bids Received on May 1, 2012 at 2:00 P.M.

Specifications No. 1697

**F.E. Weymouth Water Treatment Plant
Emergency Broadcast System Rehabilitation**

The contract consists of furnishing and installing a new microprocessor-based emergency broadcast system; adding looped fiber-optic cable network and amplifier cabinets; upgrading the system controller; and installing new speakers, horns, handsets, and amplifiers throughout the La Verne site.

Engineer's Estimate: \$1,330,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE*
Steiny and Company, Inc., Los Angeles, CA	\$ 1,438,442	\$ 601,869	41%	Yes
Unispec Construction, Inc., San Pedro, CA	\$ 1,463,000	-	-	-

*SBE (Small Business Enterprise) participation set at 20 percent

F.E. Weymouth Water Treatment Plant

