



● **Board of Directors**
Engineering and Operations Committee

12/14/2010 Board Meeting

7-1

Subject

Appropriate \$780,000; and award \$427,569 contract to Unispec Construction, Inc. for the Weymouth Filter Outlet Conduit Repairs (Approp. 15440)

Description

This action awards a construction contract at the F. E. Weymouth Water Treatment Plant for urgent structural repairs of the filter outlet conduit. This conduit conveys treated water from the plant's filters to the finished water reservoir.

Timing and Urgency

The Weymouth filter outlet conduit is a reinforced concrete box structure located on the west side of the plant, near the Administration Building. During a December 2006 Weymouth plant shutdown, staff discovered that a section of the outlet conduit has corroded reinforcing steel and spalled concrete, and needs structural repairs to prevent further deterioration. In addition, the conduit needs to be strengthened to withstand a seismic event. Damage to the outlet conduit would interrupt deliveries from the Weymouth plant. Staff recommends award of a construction contract to repair the outlet conduit. As part of this contract, Unispec will install drop gates recently fabricated by Metropolitan staff in order to bypass flows around the repair location. This work will enhance plant reliability and take advantage of the planned shutdown.

This project has been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria and is categorized as an Infrastructure Rehabilitation and Replacement project. This project is budgeted within Metropolitan's CIP for fiscal year 2010/11.

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. The Weymouth plant delivers a blend of waters from the Colorado River Aqueduct (CRA) and State Water Project (SWP) to Metropolitan's Central Pool portion of the distribution system.

During the December 2006 shutdown of the Weymouth plant, Metropolitan staff inspected the plant's reinforced concrete filter outlet conduit, which conveys treated water from the filters to the finished water reservoir. The conduit is 140 inches by 140 inches in cross-section, and was constructed in 1939. The inspection revealed that in one area of the conduit, the concrete in the roof cover and support beams is severely spalled, while a substantial amount of reinforcing steel has been exposed and is corroded. Structural analyses show that further deterioration of the concrete roof cover will result in significant reduction of its strength, and over time, the cover will not have sufficient capacity to support its own weight or to withstand a minor seismic event. Immediately following the inspection, staff performed temporary repairs consisting of adding a steel deck over the deteriorated cover.

Staff recommends removal of the corroded concrete roof cover and beams on the outlet conduit, and construction of a new reinforced concrete roof cover. To perform this work, the area needs to be isolated by installing two new drop gates during the upcoming plant shutdown scheduled for March 2011. An existing corroded gate on a

bypass conduit will also be replaced. Metropolitan forces recently fabricated these drop gates, which will be furnished to the contractor for installation. Once the conduit section is isolated, filtered water will be routed through the existing bypass conduit until completion of the repair, which is scheduled to take two months. The drop gates will then be retained for future infrastructure projects planned at the Weymouth plant.

In December 2007, Metropolitan's Board authorized final design of permanent repairs for the outlet conduit. Final design has been completed, and staff recommends award of a contract at this time so that construction may commence during the next planned Weymouth shutdown.

Weymouth Filter Outlet Conduit Repairs - Construction (\$780,000)

Specifications No. 1670A for the Weymouth Filter Outlet Conduit Repairs was advertised for bids on September 20, 2010. The contract includes removal of corroded concrete roof cover and beams on the outlet conduit; construction of a new roof cover; and installation of three Metropolitan-furnished drop gates. As shown in [Attachment 2](#), three bids were received on October 21, 2010. The low bid from Unispec Construction, Inc., in the amount of \$427,569, complies with the requirements of the specifications. The engineer's estimate was \$540,000. Staff believes the difference between the engineer's estimate and the bids received reflects the current highly competitive bidding environment. For this contract, Metropolitan has established a Small Business Enterprise (SBE) participation level of at least 20 percent of the total bid amount. Unispec Construction, Inc. is a registered SBE firm, and thus achieves 100 percent participation. This project was previously advertised for bids on July 26, 2010; all bids were rejected on September 15, 2010.

This action appropriates \$780,000 and awards a \$427,569 contract to Unispec Construction, Inc. to construct the Weymouth Filter Outlet Conduit Repairs. In addition to the amount of the contract, the appropriated funds include \$74,000 for Metropolitan force support, which includes shutdown activities, conduit disinfection, and return to service. The total cost of construction, including Metropolitan-furnished materials, is \$708,000. The appropriated funds also include \$99,000 for construction inspection; \$46,000 for submittals review by Metropolitan staff and preparation of record drawings; \$47,000 for project management and environmental monitoring; and \$86,431 for remaining budget. Metropolitan staff will perform inspection of the construction contract.

Summary

This action appropriates \$780,000 and awards a construction contract to repair the Weymouth filter outlet conduit. This work will be performed under the Weymouth Improvements Program – Phase II (Appropriation No. 15440), which was initiated in fiscal year 2006/07. Past work completed under Appropriation No. 15440 includes construction of the Filter Rehabilitation Demonstration project. The total appropriated amount for this program will increase from \$6,416,000 to \$7,196,000.

See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, and [Attachment 3](#) for the Location Map.

This project is consistent with Metropolitan's goals for sustainability by enhancing the reliability of existing treatment facilities in order to maintain reliable water deliveries in the future.

Project Milestone

June 2011 – Completion of Weymouth Filter Outlet Conduit Repairs

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 action involves the funding, design, and minor alterations, reconstruction or replacement of existing public facilities along with the construction of minor appurtenant structures with negligible or no expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under Class 1, Class 2, and Class 3 Categorical Exemptions (Sections 15301, 15302, and 15303 of the State CEQA Guidelines).

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

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Appropriate \$780,000; and
- b. Award \$427,569 contract to Unispec Construction, Inc. for the Weymouth Filter Outlet Conduit Repairs.

Fiscal Impact: \$780,000 of budgeted funds under Approp. 15440

Business Analysis: This option will enhance reliability and continued treated water deliveries from the Weymouth plant.

Option #2

Do not award the construction 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 Weymouth Filter Outlet Conduit Repairs. This option would forego an opportunity to repair the outlet conduit during the next planned Weymouth shutdown in March 2011. Delay in structural repairs would increase the risk of failure of the conduit roof cover as the deterioration progresses.

Staff Recommendation

Option #1

| | |
|--|--------------------|
|  Roy L. Wolfe Manager, Corporate Resources | 11/16/2010 Date |
|  Jeffrey Nightlinger General Manager | 11/22/2010 Date |

[Attachment 1 – Financial Statement](#)

[Attachment 2 – Abstract of Bids](#)

[Attachment 3 – Location Map](#)

Financial Statement for Weymouth Improvements Program – Phase II

A breakdown of Board Action No. 11 for Appropriation No. 15440 for the Weymouth Filter Outlet Conduit Repairs* is as follows:

| | Previous Total Appropriated Amount (Oct. 2010) | Current Board Action No. 11 (Dec. 2010) | New Total Appropriated Amount |
|--|---|--|--|
| Labor | | | |
| Studies & Investigations | \$ 735,500 | \$ - | \$ 735,500 |
| Owner Costs (Program mgmt, envir. monitoring) | 929,000 | 47,000 | 976,000 |
| Submittals Review, Record Drwgs. | 751,500 ** | 43,000 | 794,500 |
| Construction Inspection & Support | 260,300 | 99,000 | 359,300 |
| Metropolitan Force Construction | 287,700 | 74,000 | 361,700 |
| Materials and Supplies | 463,000 ** | - | 463,000 |
| Incidental Expenses | 46,800 | 3,000 | 49,800 |
| Professional/Technical Services | 889,000 | - | 889,000 |
| Equipment Use | 2,500 | - | 2,500 |
| Contracts | 1,588,122 | 427,569 | 2,015,691 |
| Remaining Budget | 462,578 ** | 86,431 | 549,009 |
| Total | \$ 6,416,000 | \$ 780,000 | \$ 7,196,000 |

Funding Request

| | | | |
|-----------------------------------|---|----------------------------------|--------------------------------|
| Program Name: | Weymouth Improvements Program - Phase II | | |
| Source of Funds: | Revenue Bonds, Replacement and Refurbishment or General Funds | | |
| Appropriation No.: | 15440 | Board Action No.: | 11 |
| Requested Amount: | \$ 780,000 | Capital Program No.: | 15440-I |
| Total Appropriated Amount: | \$ 7,196,000 | Capital Program Page No.: | 312 |
| Total Program Estimate: | \$ 134,440,000 | Program Goal: | I-Infrastructure & Reliability |

* The total amount expended to date on the Weymouth Filter Outlet Conduit Repairs is approximately \$267,000.

**Includes previous reallocation of \$245,000 from Remaining Budget to Final Design and Materials for design and fabrication of drop gates required for isolation of the filter outlet conduit.

The Metropolitan Water District of Southern California
Abstract of Bids Received on October 21, 2010 at 2:00 P.M.
Specifications No. 1670A
Weymouth Filter Outlet Conduit Repairs

The project consists of removing an existing deteriorated drop gate and installing three new Metropolitan-furnished drop gates; removal of a portion of corroded concrete roof slab and beams on the outlet conduit; and construction of a new roof slab.

Engineer's Estimate: \$540,000

| Bidder and Location | Total | SBE \$ | SBE % | Met SBE* |
|---|--------------|---------------|--------------|-----------------|
| Unispec Construction, Inc., San Pedro, CA | \$427,569 | \$427,569 | 100 | YES |
| J.F. Shea Construction, Inc., Walnut, CA | \$476,553 | N/A | N/A | N/A |
| Doty Bros. Equipment Company, Norwalk, CA | \$497,900 | N/A | N/A | N/A |

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

N/A – not applicable

F.E. Weymouth Water Treatment Plant

