



● **Board of Directors**
Engineering and Capital Programs Committee

July 14, 2009 Board Meeting

8-3

Subject

Appropriate \$2.22 million; and award \$2,426,000 procurement contract to Sojitz Corporation of America, to furnish large-diameter valves for the Weymouth plant, and for an intertie to the Inland Feeder (Approp. 15369)

Description

This action awards a procurement contract to furnish two large-diameter butterfly valves for the La Verne Pipeline and the Yorba Linda Feeder at the Weymouth plant, and one large-diameter butterfly valve for the San Bernardino Valley Municipal Water District's (SBVMWD's) Central Feeder at the Inland Feeder intertie. All expenditures for the Central Feeder valve will be reimbursed by SBVMWD.

The two existing butterfly valves on the La Verne Pipeline and the Yorba Linda Feeder are designed to provide shut-off capability, enhance reliability, and provide operational flexibility in the event of emergencies or planned Weymouth plant shutdowns for maintenance or rehabilitation work. As identified during the December 2006 Weymouth plant shutdown, both valves now leak excessively and are not operating as designed to allow isolation of the Weymouth plant. The valves were installed in 1975 and have deteriorated beyond repair.

The Weymouth Junction Structure Seismic Upgrade is categorized as an Infrastructure Rehabilitation and Replacement project and is budgeted within Metropolitan's Capital Investment Plan (CIP) for fiscal year 2009/10. This project has been reviewed with Metropolitan's updated CIP prioritization criteria.

Timing and Urgency

In keeping with the Board's directive to reduce and postpone expenses when possible during the ongoing economic crisis, Metropolitan staff closely analyzed the merits of proceeding with this project. These valves are needed to safely isolate the Weymouth and Diemer plants in an emergency or during a scheduled shutdown. Because of the high cost and the impact on member agencies of a Weymouth plant shutdown, staff recommends removing and replacing these valves during the next planned Weymouth plant shutdown in February 2011. The valve procurement contract is recommended to move forward at this time due to the 12- to 15-month lead-time to fabricate and deliver the two large-diameter valves before the February 2011 shutdown. Procurement of the third large-diameter valve for the Central Feeder-Inland Feeder intertie will allow construction of the SBVMWD intertie to be completed, in accordance with Metropolitan's Coordinated Operating Agreement with SBVMWD. This intertie permits water deliveries directly into Metropolitan's Inland Feeder.

Weymouth Junction Structure Seismic Upgrade – Procurement (\$2,220,000)

The F. E. Weymouth Water Treatment Plant was placed into service in 1941 with an initial capacity of 100 million gallons per day (mgd). The plant 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.

The Junction Structure was constructed in 1968 when water from the SWP was first introduced into the Weymouth plant. This reinforced concrete structure, which is located in the southeast corner of the plant, allows blending of untreated water from the SWP and the CRA for delivery to both the Weymouth and Diemer plants. The Junction Structure consists of a 27-foot-diameter vertical cylinder (inner ring) within a 58-foot-diameter vertical cylinder (outer ring). Flows from the Upper Feeder are connected to the inner ring, while flows from the

La Verne Pipeline and the Yorba Linda Feeder are connected to the outer ring. The 120-inch-diameter valve is located on the La Verne Pipeline and the 108-inch-diameter valve is located on the Yorba Linda Feeder, both of which are adjacent to the Junction Structure. When both valves are closed tight, water from the La Verne Pipeline can be routed directly to the Yorba Linda Feeder, bypassing the Weymouth Junction Structure. When both valves are closed tight and the Upper Feeder is dewatered, the Weymouth plant can be shut down, while the Diemer plant can continue to receive water via the La Verne Pipeline and the Yorba Linda Feeder.

In December 2006, the Weymouth plant was removed from service for the first time since 1988 so that plant inspections, maintenance, and repairs could be performed. To isolate the Weymouth plant, the Upper Feeder was dewatered and the two existing large-diameter butterfly valves on the La Verne Pipeline and the Yorba Linda Feeder were closed. Both valves leaked excessively. Metropolitan staff installed portable pumps capable of pumping out 5,000 gallons per minute of valve leakage to nearby Marshall Creek Channel, but the leakage exceeded the pump capacities. Eventually, the downstream water level within the Weymouth plant stabilized when the water reached an overflow weir, which discharged through the overflow to Marshall Creek Channel.

In December 2007, Metropolitan's Board authorized final design and preparation of specifications to procure the two replacement valves, in conjunction with the Weymouth Junction Structure Seismic Upgrade project. Procurement specifications for one 108-inch-diameter valve and one 120-inch-diameter valve required for this project have been completed and were advertised for bids. Valve fabrication and delivery are expected to take 12 to 15 months. Staff recommends award of the valve procurement contract so that the replacement valves can be installed during a planned shutdown in February 2011, when the Upper Feeder, the La Verne Pipeline, and the Yorba Linda Feeder will be dewatered so that the Junction Structure Seismic Upgrades can be performed, and the relocated Weymouth Inlet Conduit can be tied into the Upper Feeder.

This action appropriates \$2.22 million for the Weymouth Junction Structure Seismic Upgrade project. The requested funds include \$1,862,175 for a portion of the large-diameter valve procurement contract (see below); \$83,104 for fabrication inspection; \$89,563 for submittals review, contract administration and project management; \$57,400 for specialty consultant inspection and travel; and \$127,758 for remaining budget. In 2010, staff will return to the Board to award the Junction Structure Seismic Upgrade construction contract, which will include installation of the two large-diameter valves.

Central Feeder Valve – Procurement and Installation (No Net Funds Required – Reimbursable Project)

In June 2000, Metropolitan's Board authorized the General Manager to enter into a Coordinated Operating Agreement with SBVMWD, establishing a cooperative resources and operational plan to improve water supply reliability. Under this agreement, a limited-flow interconnection between the Inland Feeder and SBVMWD's Foothill Pipeline was completed in 2003 which has allowed Metropolitan to deliver over 620,000 AF to date of SWP water to Diamond Valley Lake through this connection. On July 21, 2008, Metropolitan and SBVMWD entered into an Agreement for Construction and Ownership of Interconnection Delivery Structure ISBV-02 (July 2008 Agreement). The July 2008 Agreement established the terms between Metropolitan and SBVMWD for construction and ownership of a larger-capacity interconnection with a maximum flowrate of 300 cfs connecting Metropolitan's Inland Feeder to SBVMWD's Central Feeder, thereby enhancing operational flexibility. Construction of the Central Feeder Project, including the interconnection delivery structure ISBV-02, was completed in 2008 with the exception of the 78-inch diameter butterfly valve.

Currently, limited water deliveries are possible between the Central Feeder and Inland Feeder because of a bypass pipeline around the temporary bulkhead placed within the ISBV-02 turnout structure. The bulkhead must be removed and replaced with the new sectionalizing valve so that when the valve is open, full design flows of 300 cfs will be possible into the Inland Feeder. When the new valve is closed, Metropolitan's distribution system and SBVMWD's system will be isolated from each other. Installation of the Central Feeder 78-inch diameter valve will be performed by Metropolitan forces. Costs for design, procurement, inspection, and installation of the valve will be reimbursed by SBVMWD according to the July 2008 Agreement and further specified in letter agreement dated July 1, 2009. Requirements for this 78-inch diameter valve were incorporated into the specification to procure the large-diameter valves for the Weymouth Junction Structure Seismic Upgrade Project (described above).

This action authorizes procurement and installation of the Central Feeder 78-inch diameter valve by Metropolitan forces. The portion of the valve procurement contract amount allocated to SBVMWD is \$563,825 (see below). Other anticipated costs, which will be reimbursed by SBVMWD, include \$25,000 for valve procurement activities; \$22,000 for fabrication inspection; \$23,000 for submittals review; \$500,000 for Metropolitan force construction, \$95,000 for contract administration and project management; \$126,000 for all other materials, equipment, and incidentals such as travel and equipment; \$10,000 for specialty inspection consultant; and \$135,000 for remaining budget. No funds are required in this action, as Metropolitan's costs will be reimbursed per the agreement with SBVMWD.

Award of Large-Diameter Valve Procurement Contract

Specifications No. 1591 for furnishing three large-diameter butterfly valves was advertised for bids on March 23, 2009. As shown in [Attachment 2](#), one bid was received and opened on May 5, 2009. During the bidding phase of this procurement, seven large-diameter valve suppliers were contacted by staff, and significant efforts were undertaken to attract bidders. Staff made numerous phone calls to generate interest and answered 18 written questions from prospective bidders. In addition, the initial bid opening date was extended, based upon requests for a time extension, and an addendum was issued to reduce the experience requirements in supplying large-diameter size valves. Despite these efforts, several potential bidders ultimately did not submit bids. When queried by staff, a number of manufacturers preferred not to undertake the custom engineering and fabrication required for these valves' large size, specific service condition, and physical installation.

The low bid from Sojitz Corporation of America, in the amount of \$2,426,000, complies with the requirements of the specifications. The engineer's estimate was \$3,402,425. For this contract, Metropolitan did not establish a Small Business Enterprise (SBE) participation level due to the limited number of potential suppliers of these large-diameter valves. Sojitz has previously furnished valves to Metropolitan, and was the valve supplier for the SBVMWD Central Feeder construction contract.

This action awards a \$2,426,000 procurement contract to Sojitz Corporation of America to furnish three large-diameter butterfly valves. Two valves will be installed on the La Verne Pipeline and the Yorba Linda Feeder at the Weymouth plant, in conjunction with the Weymouth Junction Structure Seismic Upgrade Project. Metropolitan's costs for the Central Feeder valve will be reimbursed by SBVMWD as part of the Central Feeder/Inland Feeder Coordinated Operating Agreement. The procurement contract amount includes all sales and use taxes imposed by the state of California, and will be allocated to the two projects as follows: Weymouth Junction Structure Seismic Upgrade (\$1,862,175) and Central Feeder/Inland Feeder Intertie (\$563,825, to be reimbursed).

Fabrication inspection will be performed by Metropolitan staff, with specialized support from On-Site Technical Services, Inc., under an existing agreement. On-Site Technical Services was selected through a competitive process; no amendment of the existing On-Site Technical Services agreement is required. For this agreement, Metropolitan established an SBE participation level of 20 percent.

These projects are consistent with Metropolitan's goals for sustainability by enhancing the reliability of the existing treatment, conveyance and distribution system, in order to maintain reliable water deliveries in the future. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, and [Attachment 3](#) for the Location Map.

Project Milestones

November 2010 – Delivery of the three large-diameter butterfly valves

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

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

California Environmental Quality Act (CEQA)

Weymouth Junction Structure Seismic Upgrade

CEQA determinations for Options #1, #2, and #3:

The environmental effects from the funding, design, minor repair of structures and facilities, and facility upgrades related to the Weymouth Junction Structure Seismic Upgrade Project and the Weymouth Inlet Valves Refurbishment Project were evaluated in the F. E. Weymouth Plant Ozonation Facilities and Site Improvements Program Final Environmental Impact Report (Final EIR), which was certified by the Board on April 12, 2005. The Board also approved the Findings of Fact (findings), the Statement of Overriding Considerations (SOC), the Mitigation Monitoring and Reporting Program (MMRP), and the projects themselves. Additionally, the Board approved final design of valve refurbishment and procurement of the valves on December 11, 2007. The current board action is solely based on appropriating funding and awarding a procurement contract or authorizing a temporary valve replacement, and not on any changes to the approved program itself. Hence, the environmental documentation acted on by the Board in conjunction with the proposed actions fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act on the proposed actions.

The CEQA determination is: Determine that the proposed actions have been previously addressed in the certified 2005 Final EIR, findings, SOC, and MMRP, and that no further environmental analysis or documentation is required.

CEQA determination for Option #4:

None required

Central Feeder Valve

CEQA determinations for Options #1 and #3:

Pursuant to the provisions of CEQA and the State CEQA Guidelines, Valley District, acting as Lead Agency, prepared and processed a Final EIR for the Regional Water Facilities Master Plan. The Final EIR evaluated the environmental impacts associated with the Central Feeder Groundwater Banking/Conjunctive Use Project. The Final EIR was certified and the Regional Water Facilities Master Plan was approved by the Lead Agency on February 6, 2001. The Lead Agency also approved the findings and adopted the Mitigation Monitoring Plan (MMP). On March 13, 2001, Metropolitan, acting as a Responsible Agency under CEQA, certified that it had reviewed and considered the information in the certified Final EIR and adopted the Lead Agency's findings related to the proposed action that was before the Board at that time.

Subsequently, a water sale to Metropolitan, through coordinated use of the Central Feeder Project and State Water Project supplies, was proposed. The sale would be coordinated through the use of facilities that had been slightly altered from the facilities examined in the Final EIR. This new information constituted a minor modification to the originally approved project. As the Lead Agency, Valley District prepared an Addendum to the Final EIR (Addendum), and approved the Addendum along with the proposed project modification on February 16, 2005. CEQA and the State CEQA Guidelines require the preparation of an addendum to a previously certified EIR if changes or additions are necessary but none of the conditions described in Section 15162 of the State CEQA Guidelines calling for the preparation of a subsequent EIR have occurred (Section 15164 of the State CEQA Guidelines). The proposed modifications to the previously approved project also did not meet any of the conditions requiring the preparation of a supplement to an EIR (State CEQA Guidelines, Section 15163). On August 21, 2007, Metropolitan, acting as a Responsible Agency, certified that it reviewed and considered the information contained in the 2005 Addendum with the Final EIR related to the proposed action that was before the Board at that time.

The present action involves authorizing procurement and installation of the Central Feeder valve by Metropolitan forces. This action implements the project modifications that were considered and approved by the Board on August 21, 2007. Metropolitan, as a Responsible Agency under CEQA, is required to certify that it has reviewed and considered the information in the certified Final EIR and adopt the Lead Agency's findings, MMP, and

Addendum prior to authorizing procurement and installation of the Central Feeder valve. The Final EIR and the Addendum which were previously reviewed and considered by Metropolitan, are available in the Board Executive Secretary's Office for review.

The CEQA determination is: Review and consider information provided in the certified 2001 Final EIR and 2005 Addendum to the Final EIR and adopt the Lead Agency's findings and MMP related to the proposed action.

CEQA determinations for Options #2 and #4:

None required

Board Options

Option #1

Adopt the CEQA determinations and

- a. Appropriate \$2.22 million; and
- b. Award a \$2,426,000 procurement contract to Sojitz Corporation of America to furnish three large-diameter butterfly valves.

Fiscal Impact: \$2.22 million of budgeted funds under Approp. 15369 for the Weymouth Junction Structure Seismic Upgrade. Costs for the Central Feeder valve are reimbursable.

Business Analysis: Replacement of the two valves on the La Verne Pipeline and the Yorba Linda Feeder will enhance operational flexibility at the Weymouth plant. Installation of a valve at the Central Feeder/Inland Feeder Intertie turnout structure is the last remaining item required to complete the intertie and Metropolitan's construction phase obligations under the Coordinated Operating Agreement. This intertie would enhance Metropolitan's operational flexibility.

Option #2

Adopt the CEQA determinations and

- a. Appropriate \$2.22 million;
- b. Award a \$1,862,175 procurement contract to Sojitz Corporation of America to furnish two large-diameter valves for the La Verne Pipeline and the Yorba Linda Feeder; and
- c. Do not procure the 78-inch-diameter butterfly valve for the Central Feeder/Inland Feeder Intertie.

Fiscal Impact: \$2.22 million of budgeted funds under Approp. 15369

Business Analysis: Replacement of the two valves on the La Verne Pipeline and the Yorba Linda Feeder will enhance operational flexibility at the Weymouth plant. This option would forego an opportunity to complete the Central Feeder/Inland Feeder Intertie work and, when supplies are available, purchase up to 200,000 acre-feet of SBVMWD's SWP water. Completion of the SBVMWD intertie would be deferred, which would be inconsistent with the Coordinating Operating Agreement. The bid for the 78-inch-diameter valve was also quite favorable, in part due to Sojitz's familiarity with the Central Feeder project. Sojitz was a valve supplier for SBVMWD's Central Feeder construction contract.

Option #3

Adopt the CEQA determinations and

- a. Award a \$563,825 procurement contract to Sojitz Corporation of America to furnish one 78-inch-diameter butterfly valve for the Central Feeder/Inland Feeder Intertie only; and
- b. Temporarily replace the valves on the La Verne Pipeline and the Yorba Linda Feeder with pipe-spool pieces, and then refurbish and reinstall the existing valves at a later date.

Fiscal Impact: Unknown; costs for the Central Feeder valve are reimbursable.

Business Analysis: This option would complete the Central Feeder/Inland Feeder intertie and enhance operational flexibility under the coordinated operation agreement between Metropolitan and SBVMWD. The two Weymouth large-diameter valves would be refurbished at a higher cost. Two special Weymouth plant shutdowns would be required to: (1) Remove the existing valves and install new spool pieces, and (2) Install the refurbished valves at a later date. Additional costs associated with this option include mobilization of two contractors at two different times, the fabrication cost of the spool pieces, cost of staff from Metropolitan and member agencies for planning the shutdowns, and cost of dewatering for member agencies, among others.

Option #4

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

Fiscal Impact: Unknown

Business Analysis: Because valve fabrication and delivery takes from 12 to 15 months, this option would forego an opportunity to replace the two valves during the next planned Weymouth plant shutdown in February 2011; and installation would be rescheduled for the 2014 plant shutdown.

Staff Recommendation

Option #1



Roy L. Wolfe
Manager, Corporate Resources

6/30/2009
Date



Jeffrey Nightlinger
General Manager

6/30/2009
Date

Attachment 1 – Financial Statement

Attachment 2 – Abstract of Bids

Attachment 3 – Location Map

BLA #6639

Financial Statement for Weymouth Improvements Program

A breakdown of Board Action No. 28 for Appropriation No. 15369 is as follows:

	Previous Total Appropriated Amount (June 2008)	Current Board Action No. 28 (July 2009)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 1,896,477	\$ -	\$ 1,896,477
Final Design	6,847,641 *	-	6,847,641
Owner Costs (Project mgmt., contract admin.)	5,574,000	34,540	5,608,540
Construction Inspection and Support	5,021,000	83,104	5,104,104
Submittals Review	-	55,023	55,023
Metropolitan Force Construction	2,761,880 *	-	2,761,880
Materials and Supplies	1,791,648 *	-	1,791,648
Incidental Expenses	168,000	27,400	195,400
Professional/Technical Services	11,296,132 *	-	11,296,132
On-Site Technical Services Inc.	-	30,000	30,000
Contracts	58,096,665 *	1,862,175	59,958,840
Remaining Budget	4,391,557 *	127,758	4,519,315
Total	\$ 97,845,000	\$ 2,220,000	\$ 100,065,000

* Includes previous reallocation of \$2,092,000 from Remaining Budget to Final Design (\$129,608), Metropolitan Force Construction (\$730,000), Materials and Supplies (\$71,528), Professional/Technical Services (\$689,095) and Contracts (\$471,769).

Funding Request

Program Name:	Weymouth Improvements Program		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15369	Board Action No.:	28
Requested Amount:	\$ 2,220,000	Capital Program No.:	15369-I
Total Appropriated Amount:	\$ 100,065,000	Capital Program Page No.:	249
Total Program Estimate:	\$ 272,390,000	Program Goal:	I-Infrastructure & Reliability

The Metropolitan Water District of Southern California

Abstract of Bids Received on May 5, 2009 at 2:00 P.M.

Specifications No. 1591

Furnishing Three Large-Diameter Butterfly Valves

This project will furnish the following three items with appurtenances:

1. One 120-inch-diameter, motor-operated butterfly valve (for the La Verne Pipeline)
2. One 108-inch-diameter, motor-operated butterfly valve (for the Yorba Linda Feeder)
3. One 78-inch-diameter, motor-operated butterfly valve (for SBVMWD's Central Feeder)

Engineer's Estimate: \$3,402,425

Bidder and Location	Total	Met SBE*
Sojitz Corporation of America, Houston, Texas	\$2,426,000**	-

*SBE (Small Business Enterprise) participation not established due to the limited number of potential suppliers of these large-diameter valves

** Total amount includes all sales and use taxes imposed by the state of California

