



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

11/9/2010 Board Meeting

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7-2

**Subject**

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Appropriate \$770,000; and award \$377,000 contract to Minako America Corp., dba Minco Construction, for rehabilitation of three service connection turnouts on the Upper Feeder (Approp. 15441)

**Description**

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This action authorizes the rehabilitation of three service connection turnouts on the Upper Feeder. The equipment at these turnouts has gradually deteriorated over 60 years of operation.

**Timing and Urgency**

Rehabilitation of three Upper Feeder turnouts is needed to repair corrosion damage to piping and equipment. Failure of components within a turnout could lead to an outage and possible property damage to surrounding areas.

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

**Background**

The Upper Feeder was constructed in 1936 as part of Metropolitan's original distribution system. The feeder is approximately 60 miles long with a diameter ranging from 84 to 144 inches. It delivers treated water from the Weymouth plant to the Eagle Rock Control Facility in the city of Los Angeles. The Upper Feeder's treated water system is comprised of a series of deep tunnels through the San Gabriel Mountains that have few isolation points due to the depth of the pipeline. The San Gabriel Tower, which is located near Morris Dam, is the westernmost isolation point for the treated water section. A pipeline failure along the western portion of the feeder would require that flows be shut off for an 18-mile section. Such an outage would affect eight active turnouts downstream of the San Gabriel Tower, serving the Three Valleys Municipal Water District, Foothill Municipal Water District, and the cities of Pasadena and San Marino.

In April 2009, a comprehensive field inspection identified three Upper Feeder turnouts that require rehabilitation. These three turnouts deliver treated water to the Foothill Municipal Water District (FM-01), the city of Pasadena (P-01), and the city of San Marino (SMR-01). Gradual corrosion during the past 60 years of operation has led to deterioration of turnout equipment such as the valves that isolate flows from the Upper Feeder. The isolation valves have reached the end of their useful life and need to be replaced. An unplanned repair due to an inoperable isolation valve would require the entire 18-mile western section of the Upper Feeder to be shut down.

In April 2010, Metropolitan's Board authorized final design and valve procurement to rehabilitate the three Upper Feeder turnouts, including replacement of valves and corroded piping. Final design was completed in August 2010, and staff recommends proceeding with award of a construction contract at this time. Installation of the valves is planned to coincide with an Upper Feeder shutdown scheduled for March 2011 to allow tie-in of the Weymouth plant's new inlet conduit.

**Upper Feeder Turnout Rehabilitation – Construction (\$770,000)**

Specifications No. 1684 for the Rehabilitation of Turnouts FM-01, P-01, and SMR-01 of the Upper Feeder was advertised for bids on August 18, 2010. The work consists of installation of new Metropolitan-furnished valves, replacement of corroded piping, recoating of all exposed cast iron piping, and restoration of the existing concrete vault slabs within public streets. As shown in [Attachment 2](#), three bids were received on September 29, 2010. The low bid from Minako America Corp., dba Minco Construction, in the amount of \$377,000, complies with the requirements of the specifications. The two higher bids were \$394,918 and \$473,313, while the engineer's estimate was \$431,000. For this contract, Metropolitan has established a Small Business Enterprise (SBE) participation level of at least 18 percent of the total bid amount. Minco Construction is an SBE firm and thus achieves 100 percent participation.

This action appropriates \$770,000 and awards a \$377,000 construction contract to Minco Construction. In addition to the amount of the contract, the requested funds include \$106,600 for Metropolitan force shutdown activities, which include dewatering, disinfection, hazardous material testing, local outreach efforts, and return to service. The total cost of construction is \$842,800, including \$359,200 for procurement of new valves and pipe fabrication which was previously authorized by the Board in April 2010. The requested funds also include \$113,500 for construction inspection; \$70,740 for Metropolitan staff to review submittals received from the contractor, respond to requests for information, advise inspection staff on technical issues, and prepare record drawings; \$60,460 for project management and environmental monitoring; and \$41,700 for remaining budget.

Metropolitan staff will perform inspection of the construction contract. For this project, the anticipated cost of inspection is approximately 13.5 percent of the total construction cost. Engineering Services' goal for inspection of construction contracts less than \$3 million is 9 to 15 percent.

**Summary**

This action appropriates \$770,000 for the rehabilitation of three service connection turnouts on the Upper Feeder. This work will be performed under the Conveyance and Distribution System Rehabilitation Program Phase II (Appropriation No. 15441), which was initiated in FY 2006/07. Past work completed under Appropriation No. 15441 includes prestressed concrete cylinder pipeline repairs of the Lake Skinner Outlet Conduit, Rialto Pipeline, San Diego Pipeline No. 5, and Sepulveda Feeder. The total appropriated amount for this program will increase from \$24,612,000 to \$25,382,000.

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 reliability of the existing conveyance and distribution system in order to maintain reliable water deliveries in the future.

***Project Milestone***

June 2011 – Completion of construction

**Policy**

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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)**

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CEQA determination for Option #1:

The project was previously determined to be categorically exempt under the provisions of CEQA and State CEQA Guidelines. The Board found these projects to be exempt under Class 1, Section 15301; Class 3, Section 15303; and Class 4, Section 15304 of the State CEQA Guidelines on April 13, 2010 and the statute of limitations has ended. With the current board actions, there are no substantial changes proposed to the project

since the original environmental determination. Hence, the previous environmental determination in conjunction with the project fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act with regards to the proposed actions.

The CEQA determination is: Determine that the proposed action has been previously addressed as a categorical exemption (Class 1, Section 15301; Class 3, Section 15303; and Class 4, Section 15304 of the State CEQA Guidelines) and that no further environmental analysis or documentation is required.

CEQA determination for Option #2:

None required

## Board Options

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### Option #1

Adopt the CEQA determination and

- a. Appropriate \$770,000; and
- b. Award \$377,000 construction contract to Minco Construction to rehabilitate three service connection turnouts on the Upper Feeder.

**Fiscal Impact:** \$770,000 in budgeted funds under Approp. 15441

**Business Analysis:** These projects will protect Metropolitan's assets, enhance reliability of deliveries to member agencies, and reduce the risk of costly emergency repairs.

### Option #2

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

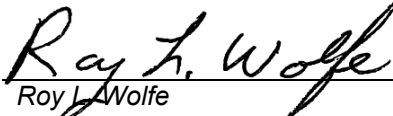
**Fiscal Impact:** None

**Business Analysis:** This option would forgo an opportunity to enhance reliability of deliveries to member agencies, and could lead to higher costs and more extensive repairs. In addition, an opportunity would be missed to perform the work during a planned shutdown of the Weymouth plant in March 2011. A separate future shutdown would be required.

## Staff Recommendation

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Option #1

  
 Roy L. Wolfe  
 Manager, Corporate Resources

10/26/2010  
 Date

  
 Jeffrey Lightlinger  
 General Manager

10/26/2010  
 Date

[Attachment 1 – Financial Statement](#)

[Attachment 2 – Abstract of Bids](#)

[Attachment 3 – Location Map](#)

Ref# cr12607542

**Financial Statement for Conveyance and Distribution System Rehabilitation Program – Phase II**

A breakdown of Board Action No. 25 for Appropriation No. 15441 for the Upper Feeder Turnout Rehabilitation

	<b>Previous Total Appropriated Amount (Aug. 2010)</b>	<b>Current Board Action No. 25 (Nov. 2010)</b>	<b>New Total Appropriated Amount</b>
Labor			
Studies & Investigations	\$ 1,730,200	\$ -	\$ 1,730,200
Final Design	2,270,400	-	2,270,400
Owner Costs (Program mgmt, record drawings, envir. monitoring)	3,103,150	128,200	3,231,350
Construction Inspection & Support	858,100	113,500	971,600
Metropolitan Force Construction	5,571,100	83,600	5,654,700
Materials and Supplies	1,230,100	-	1,230,100
Incidental Expenses	650,400	18,000	668,400
Professional/Technical Services	1,005,500	-	1,005,500
Environmental Monitoring	-	3,000	3,000
Hazardous Material Testing	-	5,000	5,000
Equipment Use	181,200	-	181,200
Contracts	5,522,647	377,000	5,899,647
Remaining Budget	2,489,203	41,700	2,530,903
<b>Total</b>	<b>\$ 24,612,000</b>	<b>\$ 770,000</b>	<b>\$ 25,382,000</b>

Project\* is as follows:

**Funding Request**

<b>Program Name:</b>	Conveyance and Distribution System Rehabilitation Program - Phase II		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15441	<b>Board Action No.:</b>	25
<b>Requested Amount:</b>	\$ 770,000	<b>Capital Program No.:</b>	15441
<b>Total Appropriated Amount:</b>	\$ 25,382,000	<b>Capital Program Page No.:</b>	277
<b>Total Program Estimate:</b>	\$ 53,850,000	<b>Program Goal:</b>	Infrastructure Reliability

\* The total amount expended to date on the Upper Feeder Turnout Rehabilitation project is approximately \$360,647.

**The Metropolitan Water District of Southern California**  
**Abstract of Bids Received on September 29, 2010 at 2:00 P.M.**  
**Specifications No. 1684, Upper Feeder Turnout Rehabilitation**

The project consists of of installation of Metropolitan-furnished valves, replacement of corroded piping, recoating of all exposed cast iron piping, and restoration of existing concrete vault slabs within public streets.

**Engineer's Estimate: \$431,000**

<b>Bidder and Location</b>	<b>Total</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE</b>
Minako America Corp. dba Minco Construction, Gardena, CA	\$377,000	\$67,860	18%	Yes
Kaveh Engineering and Construction, Inc., Anaheim, CA	\$394,918	-	-	-
J.F. Shea Construction, Inc., Walnut, CA	\$473,313	-	-	-

\*SBE (Small Business Enterprise) participation was established at 18% for this contract.

# Upper Feeder

