



● **Board of Directors**
Executive Committee

5/25/2010 Committee Meeting

8-1

Subject

Appropriate \$5 million; authorize final design; and delegate authority to the General Manager to award a construction contract for the Allen McColloch Pipeline Repairs (Approp. 15441)

Description

This action authorizes final design and construction of a rehabilitation project for six sections of prestressed concrete cylinder pipe (PCCP) on the Allen McColloch Pipeline. Due to the critical role of this pipeline in delivering treated water to south Orange County, the repairs are recommended to proceed without delay.

Timing and Urgency

The Allen McColloch Pipeline (AMP) is a 26-mile-long pipeline, which delivers treated water from the Diemer plant to south Orange County. Constructed in the late 1970's, the pipeline consists of 17 miles of welded steel pipe and 9 miles of PCCP. A recent electromagnetic inspection of the AMP identified six distressed sections of pipe, which contain at least 15 broken prestressing wires, while one section has approximately 100 wire breaks. Pipe sections with these levels of distress warrant prompt repair. Based on the locations of the distressed sections and their condition, all six sections are planned to be lined and/or replaced with welded steel pipe. Repair of the six pipe sections at this time will reduce the risk of pipe failure and disruption of deliveries to member agencies. The electromagnetic inspection report also identified five pipe sections with possible "broken backs." Staff will excavate these five sections to verify their condition.

The shutdown window to perform these repairs is rapidly closing due to approaching summer demands. As a result, staff recommends that authority to award a construction contract be delegated to the General Manager to allow the repairs to proceed quickly, and that all six sections be repaired during a shutdown scheduled for June 2010. The contract will be competitively bid under an expedited schedule, in accordance with Metropolitan's Administrative Code. Following award of the contract by the General Manager, staff will return to the Board in June 2010 for ratification of the General Manager's action.

This project is categorized as an Infrastructure Rehabilitation and Replacement project within Metropolitan's Capital Investment Plan (CIP).

Background

The Allen McColloch Pipeline was constructed by the Municipal Water District of Orange County (MWDOC) in the late 1970's. Metropolitan purchased the pipeline from MWDOC in 1995. The pipeline originates at the Diemer plant's finished water reservoir and extends 26 miles south to the El Toro Reservoir in Lake Forest. The northern 17-mile portion of the AMP consists of welded steel pipe. The southern 9-mile portion consists of PCCP that varies in diameter from 54 to 84 inches.

Electromagnetic inspections were conducted on the AMP in January 2010, and results of the inspections were received in April 2010. The results identified that six pipe sections contain prestressing wire breaks ranging from 15 to 100 breaks within single 20-foot sections. PCCP sections with these levels of distress warrant prompt repair. Based on the locations of the distressed sections and their condition, the six pipe sections will be replaced

with welded steel pipe. Welded steel pipe is recommended because the wire breaks are located at the ends of the pipe sections, and the sites are primarily located in non-urban settings where they can be excavated using open-cut methods.

Allen McColloch Pipeline Repairs – Final Design and Construction (\$5,000,000)

Specifications No. 1686 for the Allen McColloch Pipeline Repairs is planned to be advertised for bids on May 14, 2010. Bids are scheduled to be received and opened on May 21, 2010. The estimated repair cost of \$5 million is based on Metropolitan's previous repairs of distressed PCCP sections. Staff will provide bid results and the actual contract amount in the planned June board action to ratify award of the contract.

This action appropriates \$5 million, authorizes final design, and delegates authority to the General Manager to award a construction contract for repair of six distressed pipe sections on the Allen McColloch Pipeline. The scope of work includes: preparation of plans and specifications, procurement of materials and pipe fabrication, shutdown activities, construction of all repairs by a contractor, construction management and inspection, and all other support activities required to complete the repairs. The design, pipe fabrication, and construction inspection will be performed by Metropolitan staff.

Requested funds include \$2.8 million for the contract (estimated); \$815,000 for steel pipe fabrication; \$315,000 for Metropolitan force construction for shutdown activities, disinfection, hazardous materials and water quality testing, and excavation of the five possible broken back sections; \$260,000 for field inspection; \$209,000 for final design; \$231,000 for permitting, environmental monitoring, bidding process, technical support during construction, and project management; and \$370,000 for remaining budget. The anticipated cost of final design is approximately 6 percent of the estimated total construction cost. Engineering Services' goal for design of projects with construction cost greater than \$3 million is 9 to 12 percent.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team. This project is not budgeted within fiscal year 2009/10 because results of the electromagnetic inspection were received after adoption of the budget. Upon approval of this action, the fiscal years 2009/10 and 2010/11 capital expenditure plans will be adjusted to reflect the new work. See [Attachment 1](#) for the Financial Statement and [Attachment 2](#) for the Location Map.

This project is consistent with Metropolitan's goal for sustainability by enhancing the reliability of the existing conveyance and distribution system in order to maintain reliable water deliveries in the future.

Project Milestone

July 2010 – Completion of construction

Policy

Metropolitan Water District Administrative Code Section 2413(f)(1): The Executive Committee shall act on behalf of the Board in unexpected situations and emergencies, subject to subsequent approval or ratification of the actions taken whenever such approval or ratification is required by law.

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

Metropolitan Water District Administrative Code Section 8141: Competitive Sealed Bidding

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed actions are exempt under the provisions of CEQA and the State CEQA Guidelines. The overall activities involve the repair, maintenance, and minor alteration of an existing public facility involving no expansion of use beyond that existing at the time of the Lead Agency's determination, and the installation of new pipeline, or maintenance, repair, restoration, removal or demolition of an existing pipeline as long as the project does not exceed one mile in length. Accordingly, the proposed actions qualify both as a statutory exemption

under Section 21080.21 of the Public Resources Code (Section 15282 (h) of the State CEQA Guidelines) and as a categorical exemption (Class 1, Section 15301 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed actions qualify under both a statutory exemption and a categorical exemption (Class 15282 and Class 1, Section 15301 of the State CEQA Guidelines, respectively).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Appropriate \$5 million;
- b. Authorize final design of urgent repairs to the Allen McColloch Pipeline; and
- c. Delegate authority to the General Manager to award a construction contract for the Allen McColloch Pipeline repairs.

Fiscal Impact: \$5 million of unbudgeted funds under Approp. 15441

Business Analysis: This project will protect the Allen McColloch Pipeline, enhance reliability of deliveries to Metropolitan’s member agencies, and reduce the risk of costly emergency repairs.

Option #2

Do not delegate authority to award the contract.

Fiscal Impact: None

Business Analysis: Staff will return to the Board at its June meeting for contract award. This option would delay repair of the Allen McColloch Pipeline and extend the shutdown into July, which is typically a high-demand period.

Staff Recommendation

Option #1


 Roy L. Wolfe
 Manager, Corporate Resources

5/12/2010
Date


 Jeffrey Kightlinger
 General Manager

5/18/2010
Date

Attachment 1 – Financial Statement

Attachment 2 – Location Maps

Ref# cr12605996

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

A breakdown of Board Action No. 21 for Appropriation No. 15441 for the Allen McColloch Pipeline Repairs project* is as follows:

	Previous Total Appropriated Amount (April 2010)	Current Exec. Comm. Action No. 21** (May 2010)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 1,265,600	\$ -	\$ 1,265,600
Preliminary Design	141,600	-	141,600
Final Design	1,835,150	201,000	2,036,150
Owner Costs (Program mgmt, permitting,	2,558,650	231,000	2,789,650
Construction Inspection & Support	598,100	260,000	858,100
Metropolitan Force Construction	4,194,200	835,000	5,029,200
Materials and Supplies	877,600	200,000	1,077,600
Incidental Expenses	543,900	73,000	616,900
Professional/Technical Services	867,500	-	867,500
Equipment Use	151,200	30,000	181,200
Contracts	3,942,647	2,800,000	6,742,647
Remaining Budget	1,965,853	370,000	2,335,853
Total	\$ 18,942,000	\$ 5,000,000	\$ 23,942,000

Funding Request

Program Name:	Conveyance and Distribution System Rehabilitation Program - Phase II		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15441	Board Action No.:	21
Requested Amount:	\$ 5,000,000	Capital Program No.:	15441
Total Appropriated Amount:	\$ 23,942,000	Capital Program Page No.:	277
Total Program Estimate:	\$ 53,850,000	Program Goal:	Infrastructure Reliability

* This action is the initial appropriation for the Allen-McColloch Pipeline Repairs project.

**This action is planned to be ratified by Metropolitan’s Board in June 2010.



