



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

6/14/2016 Board Meeting

7-2

Subject

Appropriate \$310,000; and authorize design and valve procurement to relocate piping for Service Connection OC-76 on the Allen-McColloch Pipeline (Approp. 15480)

Executive Summary

This action authorizes design and valve procurement to relocate the turnout piping to Service Connection OC-76, which is on the Allen-McColloch Pipeline (AMP). A recent inspection identified that the 24-inch-diameter pipe extending from the AMP to the service connection has been exposed as it crosses Serrano Creek, increasing the risk of damage from erosion.

Timing and Urgency

Metropolitan's delivery line to Service Connection OC-76 extends approximately two miles from the AMP to the service connection. The pipeline passes below Serrano Creek, where it has been exposed by stormflow erosion and is at risk of damage during future storms. Failure of this line would interrupt treated water deliveries to the Municipal Water District of Orange County (MWD OC). This project will relocate the turnout from the AMP, eliminate over one mile of pipeline, and enhance reliability of the service connection.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is included in the Distribution System Reliability Program. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2015/16.

Details

Background

The AMP delivers treated water from the Robert B. Diemer Water Treatment Plant in Yorba Linda to southern Orange County. Metropolitan acquired the AMP, including Service Connection OC-76, from MWD OC in the mid-1990s. OC-76 is unique in that it features a nearly two-mile-long connecting pipeline between the AMP turnout and the service connection. For much of its length, this 24-inch-diameter connecting pipeline parallels the AMP along Trabuco Road in southern Orange County. OC-76 is located in the city of Lake Forest.

During a detailed inspection of the AMP in 2015, staff identified a section of the connecting pipeline that had been exposed due to erosion in Serrano Creek. While the line is currently intact, it could be undermined by continued erosion or could be damaged by debris flows.

The planned project will bypass the exposed portion of the connecting pipeline by relocating the AMP turnout from the north side of Serrano Creek to the south side. This relocation will eliminate approximately 6,850 feet of pipeline, including the exposed section in the creek. It will also eliminate several aging structures and valve appurtenances. A butterfly valve will be installed at the new turnout location, and an air-release/vacuum valve will be relocated above grade. No modifications are required for the service connection itself.

Relocation of Piping for Service Connection OC-76 – Design and Procurement (\$310,000)

Planned design phase activities include field investigations and potholing; preparation of environmental documentation; preparation of drawings and specifications; development of a construction cost estimate; procurement of valves; acquisition of permits; and receipt of competitive bids. All activities will be performed by Metropolitan staff except for preparation of traffic control plans, which will be performed by a specialty consultant. The valve procurement contract is planned to be awarded under the General Manager's Administrative Code authority to award contracts less than \$250,000. Staff will return to the Board at a later date for award of the construction contract.

This action appropriates \$310,000 and authorizes design and procurement to relocate piping for Service Connection OC-76 on the AMP. The requested funds include \$36,000 for potholing and utility investigations; \$85,000 for final design; \$10,000 for the consultant-prepared traffic control plans; \$37,000 for acquisition of temporary construction easements; \$55,000 for permitting, receipt of bids, and project management; \$47,000 for valve procurement and inspection; and \$40,000 for remaining budget. For this project, the anticipated cost of final design is approximately 14.6 percent of the total construction cost. Engineering Services' goal for design of projects with construction cost less than \$3 million is 9 to 15 percent. The estimated construction cost for this project is anticipated to range from \$500,000 to \$600,000.

This project is included within capital Appropriation No. 15480, the Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through 2017/18. With the present action, the total funding for Appropriation No. 15840 will increase from \$38.71 million to \$39.02 million. The total estimated cost to complete this project, including the current funds requested and future construction costs, is anticipated to range from \$1 million to \$1.1 million.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2015/16 capital expenditure plan. See [Attachment 1](#) for the Financial Statement and [Attachment 2](#) for the Location Map.

Project Milestone

December 2016 – Completion of design

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 overall activities involve studies, funding, design, minor alterations and replacement of existing public facilities 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 6 Categorical Exemptions (Sections 15301, 15302, and 15306 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 6, Section 15306 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that the proposed action is categorically exempt from CEQA, and

- a. Appropriate \$310,000; and
- b. Authorize design and valve procurement to relocate piping for Service Connection OC-76 on the Allen-McColloch Pipeline.

Fiscal Impact: \$310,000 of capital funds under Approp. 15480

Business Analysis: This option will help maintain delivery reliability and reduce the risk of urgent repairs.

Option #2

Do not proceed with the project at this time.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to reduce the risk of unplanned shutdowns, and could lead to higher repair costs.

Staff Recommendation

Option #1

 5/19/2016

 Gordon Johnson
 Manager/Chief Engineer
 Engineering Services
 Date

 5/24/2016

 Jeffrey Kightlinger
 General Manager
 Date

Attachment 1 – Financial Statement

Attachment 2 – Location Map

Financial Statement for Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through FY 2017/18

A breakdown of Board Action No. 21 for Appropriation No. 15480 for Service Connection OC-76 on the Allen-McColloch Pipeline¹ is as follows:

	Previous Total Appropriated Amount (May 2016)	Current Board Action No. 21 (June 2016)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 1,646,000	\$ 36,000	\$ 1,682,000
Final Design	6,510,000	83,000	6,593,000
Owner Costs (Program mgmt., envir. docs.)	3,116,779	55,000	3,171,779
Submittals Review & Record Drwgs	732,000	-	732,000
Right-of-Way	49,000	14,000	63,000
Construction Inspection & Support	2,386,000	4,000	2,390,000
Metropolitan Force Construction	3,165,000	-	3,165,000
Materials & Supplies	1,543,000	43,000	1,586,000
Incidental Expenses	122,000	2,000	124,000
Professional/Technical Services	2,273,000	10,000	2,283,000
Right-of-Way	257,000	23,000	280,000
Equipment Use	5,000	-	5,000
Contracts	13,860,155	-	13,860,155
Remaining Budget	3,045,066	40,000	3,085,066
Total	\$ 38,710,000	\$ 310,000	\$ 39,020,000

Funding Request

Appropriation Name:	Conveyance and Distribution System Rehabilitation Appropriation – FY 2012/13 Through FY 2017/18		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15480	Board Action No.:	21
Requested Amount:	\$ 310,000	Budget Page No.:	274
Total Appropriated Amount:	\$ 39,020,000	Total Appropriation Estimate:	\$ 255,000,000

¹ This is the initial action to relocate piping for Service Connection OC-76 on the Allen-McColloch Pipeline. The total estimated cost to complete the project is anticipated to range from \$1 million to \$1.1 million.

Distribution System

