



- Board of Directors
Engineering and Operations Committee

9/11/2012 Board Meeting

7-2

Subject

Appropriate \$480,000; and authorize preliminary design of an operations and maintenance service center for the Orange County portion of the distribution system (Approp. 15480)

Executive Summary

This action authorizes preliminary design of a new service center to support operations and maintenance (O&M) activities within the Orange County portion of Metropolitan's distribution system. These critical support activities are currently being performed from temporary trailers and warehouses on an interim basis. The temporary facilities are inadequate to efficiently support operational needs within the Orange County area over a sustained period.

Timing and Urgency

Typical maintenance activities which must be performed routinely within the distribution system include repairing and recoating deteriorated valves, welding spool pieces and piping, and repairing air vents and meter cabinets. Most of the ongoing rehabilitation projects within the Orange County area cannot be supported with the present temporary facilities because of equipment lifting restrictions and space limitations. Equipment that cannot be repaired at the temporary facilities must be transported to the La Verne shops for repair resulting in delays and transportation challenges. A permanent service center is required to support a 700-square-mile Orange County service area and a high volume of facilities, including over 140 miles of pipelines and a total of over 1,000 structures. The new service center will provide a safer and more efficient workspace to conduct the daily O&M functions necessary for reliable distribution system operation.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is categorized as an Infrastructure Reliability project. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2012/13.

Details

Background

Metropolitan's conveyance and distribution system encompasses a service area of 5,200 square miles. The system includes the 242-mile-long Colorado River Aqueduct (CRA), over 830 miles of pipelines, and nearly 5,000 individual structures that require regular maintenance and monitoring. To efficiently perform needed O&M activities across the service area, the conveyance and distribution system is divided into three major operating regions: the Desert, Eastern, and Western Regions. Within each region there are several service centers that support local maintenance activities. Typical maintenance activities which are routinely performed include refurbishing, sandblasting, and coating small to medium-size check, air release, and plug valves; welding damaged or corroded piping, vent stacks, and above-grade meter cabinets; and maintenance of specialized equipment for dewatering, chlorination, and dechlorination of pipelines.

Within the Desert Region, there are full service centers located at each of the five CRA pumping plants. Within the Western Region, there are full service centers located at the Jensen plant, the Soto Street facility, and the

Weymouth plant, and a small facility at Etiwanda power plant. Within the Eastern Region, which includes Orange County, Riverside County, and western San Bernardino County, there is presently only a single permanent service center at Diamond Valley Lake. The Orange County area is currently served by a temporary facility located on the site of the Diemer plant. This temporary facility was established to support O&M activities within Orange County during construction of the Diemer Oxidation Retrofit Program's (ORP) multiple staged projects. A permanent, aging service center had formerly been located at the Diemer plant in the footprint of the planned ozonation facilities. This facility was demolished so that the Diemer plant's south slope stabilization project could proceed. Now that the Diemer ORP is nearing completion, the subject project will provide a permanent, efficient service center to support O&M needs in the Orange County area. The Orange County Conveyance and Distribution Service Center will be located on a newly created pad at the Diemer plant's northwest hill, separate from the main plant facilities.

Staff is currently assessing the need for other permanent service centers to support the Eastern Region of the distribution system, with a focus on Lake Mathews and the Skinner area. These facilities will be the subject of future board actions.

The Orange County portion of the conveyance and distribution system consists of over 140 miles of pipelines, a total of 1,114 structures, four pressure control structures, three hydroelectric power plants, one regulating reservoir, and one pumping plant. The area extends from Corona on the east and Buena Park and Huntington Beach on the west, to Yorba Linda on the north and Newport Beach on the south.

Currently, routine maintenance and repairs for the Orange County area are conducted from the temporary facility, which includes an aging warehouse building with limited utilities, two 40-foot-long trailers, and shipping containers. Repairs performed at these temporary facilities are limited because of space and lifting restrictions, and regulatory limitations. Equipment and valves that cannot be repaired at the temporary facilities are either replaced or must be transported to the La Verne shops for repair resulting in delays and transportation challenges. Field maintenance supplies and dewatering equipment (which includes large pumps, piping, dechlorination trailers, blowers, and portable generators) are stored in shipping containers, which are inefficient for use as a warehouse due to their limited access and inadequate ventilation and lighting. This project is recommended to proceed to increase the efficiency of maintenance work, improve emergency response capability, and meet increasingly stringent regulatory requirements.

As part of a master planning effort undertaken prior to initiation of the Diemer ORP, Metropolitan surveyed the Orange County area to identify possible sites for a relocated conveyance and distribution service center. Included in this survey were potential use of the Orange County Reservoir site, the Yorba Linda Test Facility, and other parcels not owned by Metropolitan. The survey concluded that locating a new service center at the Diemer plant would be the most economical alternative. As a result, the Diemer site master plan identified a location for the new conveyance and distribution service center to the south of the plant's solids handling facilities. This location would be the least expensive for construction, would maintain the Diemer plant as a hub for emergency response activities, and would avoid overcrowding at the main plant level. The Diemer ORP contractor has been utilizing this site as its laydown area for the duration of its work. Now that the Diemer ORP construction is nearing completion, the ORP contractor will vacate this laydown area, allowing construction of the conveyance and distribution service center to move forward.

Orange County Conveyance and Distribution Service Center – Preliminary Design Phase (\$480,000)

The planned service center will include a welding/fabrication shop, sandblasting booth, painting and coating shop, pipe and conduit bending area, work bench and parts cleaning areas, tool crib, storage areas for paint and welding supplies, and offices for activities such as shutdown planning and utility investigations. Preliminary design phase activities will include an assessment of work flow processes, equipment needs, floor space requirements, and circulation in order to provide a safe and efficient workspace. Planned activities also include preparation of layout drawings; development of final design criteria; geotechnical investigations; and development of a construction cost estimate. These activities will be performed by specialized consultants, as discussed below. Metropolitan staff will perform field surveys, initiate permitting, coordinate the consultant activities with other work underway at the Diemer plant, and prepare environmental documentation.

This action appropriates \$480,000 and authorizes preliminary design phase activities for the Orange County Conveyance and Distribution Service Center. Requested funds include \$186,000 for preliminary design by the architectural consultant; \$32,000 for field surveys by Metropolitan staff; \$66,000 for geotechnical investigations; \$50,000 for value engineering; \$83,000 for permitting with the Orange County Fire Authority, preparation of environmental documentation, project management, and development of a construction cost estimate; and \$63,000 for remaining budget. Staff will return to the Board at a later date for authorization of final design. The estimated construction cost for this project is anticipated to range from \$6.8 million to \$7.3 million.

Architectural Services (No Action Required)

Preliminary design of the service center building is recommended to be performed by La Canada Design Group under an existing professional services agreement. Metropolitan has insufficient technical resources in-house to perform the work without assistance from an architectural consultant. La Canada Design Group was selected through a competitive process via Request for Qualifications No. 943, and was awarded an agreement under the General Manager's authority in September 2010 to provide on-call architectural services. No amendment to the existing agreement is required. The estimated cost for these services is \$186,000. For this agreement, Metropolitan has established a Small Business Enterprise (SBE) participation level of 18 percent.

Geotechnical Investigations (No Action Required)

Geotechnical support is recommended to be provided by URS Corporation under an existing professional services agreement. Geotechnical investigations are highly specialized, and Metropolitan does not maintain technical resources in-house to perform this work. URS Corporation will conduct site investigations, perform laboratory analyses, and recommend geotechnical design criteria for the service center.

URS Corporation was selected through a competitive process via Request for Qualifications No. 931, and an agreement was awarded under the General Manager's authority in December 2009 to provide on-call geotechnical services. No amendment to the existing agreement is required. The estimated cost for the geotechnical investigations is \$66,000. For this agreement, Metropolitan has established an SBE participation level of 18 percent.

Other Specialized Support (No Action Required)

A value engineering workshop is planned to be conducted for the Orange County Conveyance and Distribution Service Center. Value Management Strategies, Inc. will perform the value engineering under an existing professional services agreement, selected through a competitive process via Request for Qualifications No. 949. No amendment to the existing agreement is required. For this agreement, Metropolitan has established an SBE participation level of 18 percent. The estimated cost for these services is \$50,000.

This work is included within capital Appropriation No. 15480, Conveyance and Distribution System Rehabilitation - FY 2012/13 through FY 2017/18. This is the initial action for Appropriation No. 15480.

This work has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2012/13 capital expenditure plan. See [Attachment 1](#) for the Financial Statement and [Attachment 2](#) for the Location Map.

Project Milestone

June 2013 – Completion of preliminary design for the Orange County Conveyance and Distribution Service Center

Policy

Metropolitan Water District Administration Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8121: General Manager Authority 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 the funding, studying, carrying out of preliminary design, and preparing and processing environmental documentation for the proposed action. These activities consist of basic data collection and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action, which a public agency has not yet approved, adopted, or funded. In addition, the activities may involve a check for performance of an operation, or quality, health, or safety of a project. Accordingly, the proposed action qualifies for both Class 6 and Class 9 Categorical Exemptions (Sections 15306 and 15309 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under two Categorical Exemptions (Class 6, Section 15306; and Class 9, Section 15309 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Appropriate \$480,000; and
- b. Authorize preliminary design of an operations and maintenance service center for the Orange County portion of the distribution system.

Fiscal Impact: \$480,000 in capital funds under Approp. 15480

Business Analysis: This option will enhance emergency response capability and the operational reliability of the distribution system.

Option #2

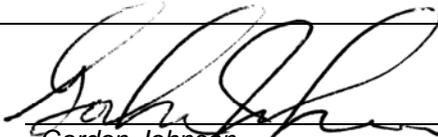
Do not proceed with the new service center at this time.

Fiscal Impact: None

Business Analysis: Staff will continue to utilize temporary facilities. Valves and equipment maintenance that cannot be performed in the temporary shops will continue to be transported to La Verne resulting in repair delays and transportation challenges. This option will forego an opportunity to provide an efficient facility to support O&M and rehabilitation projects, and to enhance emergency response capability and operational reliability.

Staff Recommendation

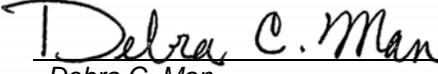
Option #1



 Gordon Johnson
 Manager/Chief Engineer
 Engineering Services

8/27/2012

 Date



 Debra C. Man
 for Jeffrey Kightlinger
 General Manager

8/29/2012

 Date

[Attachment 1 – Financial Statement](#)

[Attachment 2 – Location Map](#)

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

A breakdown of Board Action No. 1 for Appropriation No. 15480 for the Orange County Conveyance and Distribution Service Center¹ is as follows:

	Current Board Action No. 1 (Sept. 2012)
Labor	
Studies & Investigations	\$ 32,000
Owner Costs (Program mgmt, envir doc, permitting)	82,000
Metropolitan Force Construction	-
Materials & Supplies	-
Incidental Expenses	1,000
Professional/Technical Services	
La Canada Design Group	186,000
URS	66,000
Value Management Strategies, Inc.	50,000
Equipment Use	-
Contracts	-
Remaining Budget	63,000
Total	\$ 480,000

Funding Request

Program Name:	Conveyance and Distribution System Rehabilitation - FY 2012/13 Through FY 2017/18		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15480	Board Action No.:	1
Requested Amount:	\$ 480,000	Capital Program No.:	15480-I
Total Appropriated Amount:	\$ 480,000	Capital Program Page No.:	40
Total Program Estimate:	\$ 17,210,700	Program Goal:	I- Infrastructure Reliability

¹ This is the initial action for the Orange County Conveyance and Distribution Service Center project.

Metropolitan Distribution System

