THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BOARD ACTION

- Board of Directors
  Engineering and Operations Committee

5/14/2019 Board Meeting

8-5

Subject

Award $8,888,000 contract to Myers & Sons Construction, LLC to rehabilitate the flocculators in Module Nos. 2 and 3 at the Joseph Jensen Water Treatment Plant; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

This action awards a contract to rehabilitate the flocculators in Module Nos. 2 and 3 at the Joseph Jensen Water Treatment Plant. This work will improve plant reliability and extend the service life of critical equipment.

Timing and Urgency

The flocculators at the Jensen plant are critical components of the plant's overall water treatment process. The flocculation equipment in Module Nos. 2 and 3, which slowly mix chemicals added as part of the water treatment process, have been in continuous service since its original installation in 1995. The equipment shafts have become misaligned, and the metallic components have gradually deteriorated due to corrosion. The associated baffle wall boards have deteriorated over time and no longer provide uniform flow distribution as originally designed. Replacement and refurbishment of these mechanical and structural components are needed to maintain plant reliability and continue to meet treated water quality goals.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is included in the Treatment Plant Reliability Program. Funds for the work to be performed under this action during the current biennium are available within the appropriation for planned biennial CIP expenditures for fiscal years 2018/19 and 2019/20.

Details

Background

The Jensen plant was placed into service in 1972 with an initial capacity of 400 million gallons per day (mgd). The plant was expanded to its current capacity of 750 mgd in the 1990s. The Jensen plant treats water from the West Branch of the State Water Project and delivers it to Metropolitan's Central Pool and to exclusive service areas on the west side of the distribution system. The facility is located in Granada Hills.

The Jensen plant uses a multistep water treatment process consisting of disinfection with ozone, coagulation, flocculation, sedimentation, granular media filtration, and chloramine disinfection. Module Nos. 2 and 3 contain a total of eight flocculation/sedimentation basins. The flocculation portion of each basin contains six flocculators comprised of horizontal rotating shafts with paddle arms for a total of 48 flocculators within Module Nos. 2 and 3. These rotating assemblies slowly mix the coagulation chemicals to promote the formation of larger particles which settle out in the sedimentation basins. The flocculators in each basin are critical to the water treatment process and are operated on a continuous basis.

To efficiently meet water treatment goals, Metropolitan staff conducts regular maintenance of the plant's electrical and mechanical equipment. Although the plant continues to perform reliably today, some of the flocculator-related equipment has deteriorated through use and needs to be refurbished. Staff is in the process of assessing the merits of reducing the maximum treatment capacity of the Jensen plant. Module No. 1 of the Jensen Plant would be affected by a potential future capacity reduction. Staff anticipates Module Nos. 2 and 3, which are

the subject of this board action, will remain in service even under reduced capacity scenarios. As a result, the project to refurbish the flocculators in Module Nos. 2 and 3 is recommended to move forward at this time to maintain plant reliability and the plant's ability to meet treated water goals.

Module Nos. 2 and 3 Flocculator Rehabilitation – Construction

The planned contractor work consists of the rehabilitation of flocculators in Module Nos. 2 and 3, which includes replacing mechanical rotating assemblies, paddle boards, and baffle boards; refurbishing bearing housings; and sequencing work in coordination with plant operations and outage schedules. Metropolitan force activities will include making improvements to flocculator instrumentation and control systems, installation of lighting around the flocculators, and installation of bird netting.

A total of $12,900,000 is required for the recommended activities. The following section and **Attachment 1** provide the allocation of the budgeted funds. The total estimated cost of Jensen Module Nos. 2 and 3 Flocculator Basin Rehabilitation Project is approximately $13.9 million.

Award of Construction Contract (Myers & Sons Construction, LLC)

Specifications No. 1830 for Module Nos. 2 and 3 Flocculator Rehabilitation was advertised for bids on February 12, 2019. As shown in **Attachment 2**, 10 bids were received and opened on March 25, 2019. The low bid from Myers & Sons Construction, LLC in the amount of $8,888,000 complies with the requirements of the specifications. The other bids ranged from approximately $8.9 million to $12.7 million, while the engineer's estimate for this project was $9.05 million. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 10 percent of the bid amount. Myers & Sons Construction, LLC is an SBE firm, and thus achieves 100 percent participation. The subcontractor for this contract is listed in **Attachment 3**.

This action awards an $8,888,000 contract to Myers & Sons Construction, LLC for the rehabilitation of 48 flocculators in Module Nos. 2 and 3 at the Jensen plant. A total of $12,900,000 has been budgeted for this work; besides the amount of the contract, other allocated funds include $468,000 for the Metropolitan force activities described above; $220,000 for materials for Metropolitan force activities; $1,092,000 for construction inspection; $660,000 for submittals review, technical support during construction, responding to requests for information, and preparation of record drawings; $622,000 for environmental compliance monitoring, hazardous materials management, contract administration, and project management; and $950,000 for remaining budget.

Construction inspection will be performed by Metropolitan staff. For this project, the performance metric goal for inspection is 11.4 percent of the total construction cost. Engineering Services' performance metric target range for inspection of projects with construction greater than $3 million is 9 to 12 percent. The total cost of construction for this project is $9,576,000, which includes the amount of the contract ($8,888,000) and Metropolitan force activities ($688,000).

Summary

This action awards an $8,888,000 contract to Myers & Sons Construction, LLC for the rehabilitation of eight flocculators in Module Nos. 2 and 3 at the Jensen plant. See **Attachment 1** for the Allocation of Budgeted Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the listing of Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

A total of $12,900,000 has been budgeted for this work. This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team. Funds for the work to be performed under this action during the current biennium are available within the appropriation for planned biennial CIP expenditures for fiscal years 2018/19 and 2019/20. Funds required for work to be performed under this action after fiscal year 2019/20 will be appropriated after adoption of the next biennial budget.

Project Milestone

February 2021 – Completion of construction of Module Nos. 2 and 3 Flocculator Rehabilitation

Policy

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

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 49704, dated March 11, 2014, the Board authorized design to rehabilitate flocculators and traveling bridges at Jensen Modules Nos. 2 and 3

By Minute Item 51353, dated October 9, 2018, the Board appropriated a total of $290 million for projects identified in the Capital Investment Plan for Fiscal Years 2018/19 and 2019/20

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 proposed project involves minor alterations to and/or rehabilitation and replacement of existing 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, and 2 Categorical Exemptions (Class 1, Section 15301, and Class 2, Section 15302, of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Award $8,888,000 contract to Myers & Sons Construction, LLC to rehabilitate the flocculators in Module Nos. 2 and 3 at the Jensen plant.

Fiscal Impact: $12.9 million in capital funds
Business Analysis: This option will enhance treatment process reliability and infrastructure reliability at the Jensen plant.

Option #2

Do not proceed with rehabilitation of the flocculators in Module Nos. 2 and 3 at the Jensen plant at this time.
Fiscal Impact: None
Business Analysis: This option would forego an opportunity to reduce the risk of unplanned operational limitations at the Jensen plant based on flocculation system capacity.

Staff Recommendation

Option #1

4/17/2019

John V. Bednarski ***Date***
Chief Engineer
Engineering Services

4/29/2019

Jeffrey Kightlinger *Date*
General Manager

Attachment 1 – Allocation of Budgeted Funds

Attachment 2 – Abstract of Bids

Attachment 3 – Subcontractors for Low Bidder

Attachment 4 – Location Map

Ref# es 12668594

Allocation of Budgeted Funds for Jensen Module Nos. 2 and 3 Flocculator Rehabilitation

	Current Board Action (May 2019)
Labor	
Studies & Investigations	$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	622,000
Submittals Review & Record Drwgs.	660,000
Construction Inspection & Support	1,092,000
Metropolitan Force Construction	468,000
Materials & Supplies	220,000
Incidental Expenses	-
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	
Myers & Sons Construction, LLC	8,888,000
Remaining Budget	950,000
Total	**$ 12,900,000**

The total amount expended to date for Jensen Modules 2 and 3 Flocculator Rehabilitation is approximately $950,000. The total estimated cost to complete this project, including the amount appropriated to date and funds allocated for the work described in this action, is $13.9 million.

The Metropolitan Water District of Southern California

Abstract of Bids Received on March 25, 2019 at 2:00 P.M.

Specifications No. 1830
Jensen Module Nos. 2 and 3 Flocculator Rehabilitation

The planned contract work consists of the rehabilitation of flocculators in Module Nos. 2 and 3, which includes replacing mechanical rotating assemblies, paddle boards, and baffle boards; refurbishing bearing housings; and sequencing work in coordination with plant operations and outage schedules.

Engineer's estimate: $9,050,000

Bidder and Location	Total	SBE $	SBE %	Met SBE[1]
Myers & Sons Construction, LLC **Sacramento, CA**	$ 8,888,000	$ 8,888,000	**100%**	**Yes**
PCL Construction, Inc. Long Beach, CA	$ 8,936,923	-	-	-
J.F. Shea Construction, Inc. Walnut, CA	$ 8,989,905	-	-	-
Cushman Contracting Corporation Goleta, CA	$ 9,224,000	-	-	-
Environmental Construction, Inc. Woodland Hills, CA	$ 9,469,870	-	-	-
Spectrum Construction Group, Inc. Irvine, CA	$ 9,600,000	-	-	-
Steve P. Rados, Inc. Santa Ana, CA	$ 9,875,000	-	-	-
Kiewit Infrastructure West Co. Santa Fe Springs, CA	$ 10,829,000	-	-	-
MMC, Inc. La Palma, CA	$ 12,340,000	-	-	-
GMZ Engineering, Inc. Westlake Village, CA	$ 12,700,000	-	-	-

[1] Small Business Enterprise (SBE) participation level established at 10% for this contract.

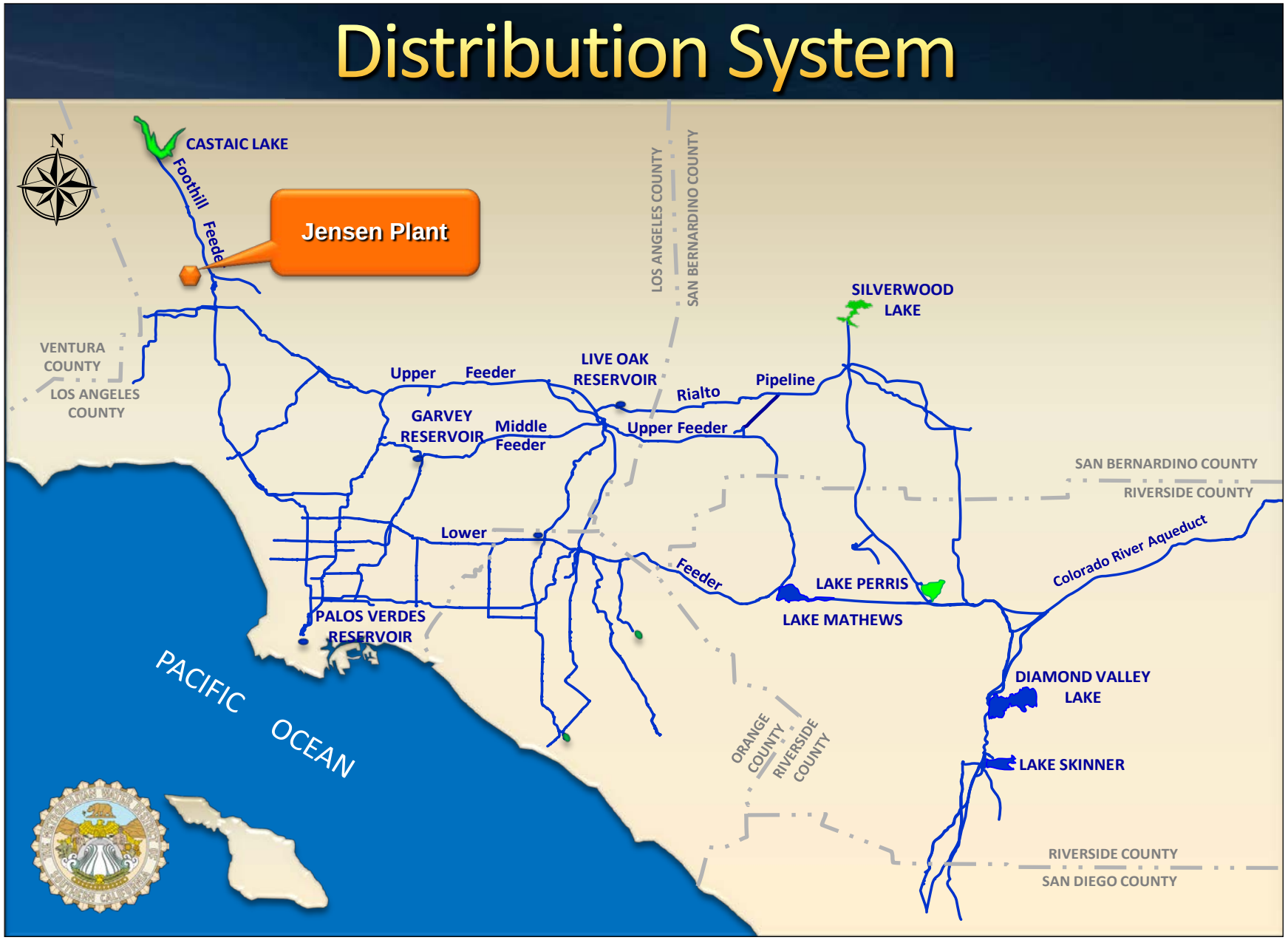
The Metropolitan Water District of Southern California

Subcontractors for Low Bidder

Specifications No. 1830
Jensen Module Nos. 2 and 3 Flocculator Rehabilitation

Low bidder: Myers & Sons Construction, LLC

Subcontractor and Location
Techno Coatings Anaheim, CA


Distribution System
N
CASTAIC LAKE
Foothill Feeder
Jensen Plant
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
SILVERWOOD LAKE
VENTURA COUNTY
LOS ANGELES COUNTY
Upper Feeder
LIVE OAK RESERVOIR
Rialto Pipeline
GARVEY RESERVOIR
Middle Feeder
Upper Feeder
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
Lower Feeder
Colorado River Aqueduct
LAKE PERRIS
LAKE MATHEWS
PALOS VERDES RESERVOIR
PACIFIC OCEAN
DIAMOND VALLEY LAKE
ORANGE COUNTY
RIVERSIDE COUNTY
LAKE SKINNER
RIVERSIDE COUNTY
SAN DIEGO COUNTY