



- Board of Directors  
*Engineering and Operations Committee*

8/20/2019 Board Meeting

---

**8-4**

## **Subject**

---

Adopt CEQA determination that the proposed action was previously addressed in the certified 2005 Environmental Impact Report; and award \$2,944,000 contract to Mehta Mechanical Company, Inc. for construction of water quality instrumentation improvements at the F. E. Weymouth Water Treatment Plant

## **Executive Summary**

---

This action awards a contract to construct water quality instrumentation improvements at the F. E. Weymouth Water Treatment Plant (Weymouth Plant.) This work will provide for reliable monitoring and rapid response to changing water quality conditions.

Water quality instruments monitor flow at the Weymouth plant's filter outlet and finished water reservoir inlet for regulated constituents. Modifications to the existing monitoring system are needed to improve the accuracy of the collected data as required under the more stringent monitoring and reporting requirements. The planned improvements include installing new instruments at locations that are immediately adjacent to their sampling points. This retrofit will improve water quality monitoring reliability and accuracy by reducing the time it takes to identify changes in water quality conditions.

## **Details**

---

### **Background**

The Weymouth plant was placed into service in 1941 and has a current treatment capacity of 520 million gallons per day. The plant delivers a blend of waters from the Colorado River Aqueduct and State Water Project to Metropolitan's Central Pool portion of the distribution system and to an exclusive service area. The Weymouth plant is located in the city of La Verne.

A number of key water quality parameters are monitored at the inlet and outlet of the Weymouth finished water reservoir. The subject water quality instrumentation includes analyzers for turbidity, chlorine residual, ammonia residual, pH, fluoride concentration, conductivity, and other water quality parameters. Timely and accurate water quality results are required to properly monitor regulated constituents. At the Weymouth plant, these key instruments were installed in 1989, and have been modified over time to maintain compliance with monitoring regulations. Currently, these instruments at the Weymouth plant are in the basement of the administration building, more than 500 feet from the actual sample points location. Long piping runs from the sampling points to the analyzers can lead to erroneous data collection due to sample degradation during the excessive sample transport times. Long sample lines may also encourage the development of biological growth in the lines, which may plug the lines or lead to erroneous instrument readings.

This project consists of relocating the water quality monitoring instrumentation so that they are in close proximity to the sampling points. This will be accomplished by constructing a new enclosure located near the finished water reservoir, installing an instrumentation cabinet near the combined filter outlet channel, and installing new sample piping. By locating the new instrument stations immediately adjacent to each sampling point, more accurate and reliable monitoring data will be obtained.

In October 2018, the Board appropriated funds and authorized the General Manager to initiate or proceed with work on all capital projects identified in the Capital Investment Plan (CIP), subject to any limits on the General

Manager's authority and CEQA requirements. This project has been reviewed with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP Evaluation Team to be included in the Treatment Plant Reliability Program.

In accordance with the October 2018 action, the General Manager will authorize staff to proceed with construction of water quality instrumentation improvements at the Weymouth plant pending board award of the contract described below. Funds for the work to be performed pursuant to the subject contract during the current biennium are available within the Capital Investment Plan Appropriation for Fiscal Years 2018/19 and 2019/20 (Appropriation No. 15509). Funds required for work performed after fiscal year 2019/20 will be appropriated after the adoption of the next biennial budget.

### **Water Quality Instrumentation Improvements – Construction**

The scope of the construction contract consists of constructing a new 15-foot by 50-foot concrete water quality instrumentation building; installing sample piping, instrumentation, analyzers, sample pumps, drain lines, a backflow preventer, potable water line, and electrical equipment; making connections to existing utilities; and testing and disinfecting the new system.

A total of \$5,200,000 is required to perform this work. In addition to the amount of the contract described below, other funds to be allocated include \$434,000 for construction inspection; \$885,000 for Metropolitan force activities, including removal of old sample lines, tie-in to sample lines, and procurement and installation of water quality instruments, monitors, and control systems; \$339,000 for submittals review, technical support during construction, responding to requests for information, and preparation of record drawings; \$110,000 for environmental compliance monitoring, hazardous materials management, contract administration, and project management; and \$488,000 for remaining budget.

**Attachment 1** provides the allocation of the required funds. The total estimated cost to improve water quality instrumentation at the Weymouth plant, including the amount appropriated to date and funds allocated for the work described in this action, is approximately \$6.6 million. Approximately \$1.4 million has been expended on this project to date.

### ***Award of Construction Contract (Mehta Mechanical Company, Inc.)***

Specifications No. 1829 for Weymouth Water Quality Instrumentation Improvements was advertised for bids on May 24, 2019. As shown in **Attachment 2**, four bids were received and opened on July 3, 2019. The low bid from Mehta Mechanical Company, Inc., in the amount of \$2,944,000, complies with the requirements of the specifications. The other bids ranged from approximately \$3.5 million to \$3.8 million, while the engineer's estimate for this project was \$2.48 million. Staff investigated the difference between the engineer's estimate and the low bid and attributes the difference to several factors: (1) complexity of the electrical and instrumentation scopes of work; (2) need to construct a new duct bank through a highly congested area at the plant; and (3) complex logistical and planning requirements to construct new facilities while coordinating and avoiding impacts to day-to-day plant operation. For this contract, Metropolitan established a Small Business Enterprise participation level of at least 25 percent of the bid amount. Mehta Mechanical Company, Inc. has committed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**.

This action awards a \$2,944,000 contract to Mehta Mechanical Company, Inc. for the water quality instrumentation improvements at the Weymouth plant.

As described above, construction inspection will be performed by Metropolitan staff. Engineering Services' performance metric target range for inspection of projects with construction greater than \$3 million is 9 to 12 percent. For this project, the performance metric goal for inspection is 11.3 percent of the total construction cost. The total cost of construction for this project is \$3,829,000, which includes the amount of the contract (\$2,944,000) and Metropolitan force activities (\$885,000).

## Summary

This action awards a \$2,944,000 contract to Mehta Mechanical Company, Inc. for water quality instrumentation improvements at the Weymouth plant. See **Attachment 1** for the Allocation of 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.

## Project Milestone

March 2021 – Completion of construction of water quality instrumentation improvements at the Weymouth plant

## 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 49765, dated May 13, 2014, the Board authorized final design of water quality instrumentation improvements at the Weymouth plant

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 environmental effects from the Water Quality Instrumentation Improvements Project were evaluated in the F. E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program Final Environmental Impact Report (Final EIR), which was certified by the Board on April 12, 2005. The Board also approved the Findings of Fact (Findings), the Statement of Overriding Considerations (SOC), the Mitigation Monitoring and Reporting Program (MMRP), and the Project itself. The current board action is solely based on authorizing award of construction for the Water Quality Instrumentation Improvements Project, and not on any changes to the approved project itself. Hence, the previous environmental documentation acted on by the Board in conjunction with the proposed action fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act on the proposed action.

### CEQA determination for Option #2:

None required

## Board Options

---

### Option #1

- a. Adopt the CEQA determination that the proposed action was previously addressed in the certified 2005 Final EIR and related documentation and that no further environmental analysis or documentation is required; and
- b. Award \$2,944,000 contract to Mehta Mechanical Company, Inc. to construct the water quality instrumentation improvements at the Weymouth plant.

**Fiscal Impact:** \$5.2 million in capital funds

**Business Analysis:** This option will enable a reliable and rapid response to changes in water quality conditions at the Weymouth plant.

### Option #2

Do not award a construction contract for the water quality instrumentation improvements at the Weymouth plant at this time.

**Fiscal Impact:** None

**Business Analysis:** This option would forego an opportunity to enable a reliable and rapid response to changes in water quality conditions at the Weymouth plant.

**Staff Recommendation**

---

Option #1

  
\_\_\_\_\_  
John V. Bednarski  
Manager/Chief Engineer  
Engineering Services

7/25/2019

Date

  
\_\_\_\_\_  
Jeffrey Nightlinger  
General Manager

7/31/2019

Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Abstract of Bids**

**Attachment 3 – Subcontractors for Low Bidder**

**Attachment 4 – Location Map**

Ref# es12667776

### Allocation of Funds for Weymouth Water Quality Instrumentation Improvements

|   | <b>Current Board<br/>Action<br/>(Aug. 2019)</b> |
|---|---|
| Labor   |   |
| Studies & Investigations                          | \$ -  |
| Final Design                                      | -   |
| Owner Costs (Program mgmt.,<br>envir. monitoring) | 110,000   |
| Submittals Review & Record Drwgs.                 | 339,000   |
| Construction Inspection & Support                 | 434,000   |
| Metropolitan Force Construction                   | 665,000   |
| Materials & Supplies                              | 220,000   |
| Incidental Expenses                               | -   |
| Professional/Technical Services                   | -   |
| Right-of-Way                                      | -   |
| Equipment Use                                     | -   |
| Contracts   | -   |
| Mehta Mechanical Company, Inc.                    | 2,944,000                                       |
| Remaining Budget                                  | 488,000   |
| <b>Total</b>                                      | <b>\$ 5,200,000</b>                             |

The total amount expended to date for Weymouth Water Quality Instrumentation Improvements is approximately \$1.4 million. 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 \$6.6 million.

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on July 3, 2019 at 2:00 P.M.**

**Specifications No. 1829  
Weymouth Water Quality Instrumentation Improvements**

The planned work consists of construction of a new 15-foot by 50-foot concrete water quality instrumentation enclosure; installation of sample piping, instrumentation, analyzers, reservoir inlet sample pumps, backflow preventer, drain lines, potable water line, and electrical equipment; tying into existing utilities; and testing and disinfection.

Engineer's estimate: \$2,480,000

| <b>Bidder and Location</b>                                  | <b>Total</b>       | <b>SBE \$</b>      | <b>SBE %</b> | <b>Met SBE<sup>1</sup></b> |
|---|--------------------|--------------------|--------------|----------------------------|
| <b>Mehta Mechanical Company, Inc.<br/>La Palma, CA</b>      | <b>\$2,944,000</b> | <b>\$2,944,000</b> | <b>100</b>   | <b>Yes</b>                 |
| Metro Builders & Engineers Group, Ltd.<br>Newport Beach, CA | \$3,501,182        | -                  | -            | -                          |
| Leonida Builders, Inc.<br>Santa Clarita, CA                 | \$3,790,000        | -                  | -            | -                          |
| CSI Electrical Contractors, Inc.<br>Santa Fe Springs, CA    | \$3,840,000        | -                  | -            | -                          |

<sup>1</sup> Small Business Enterprise (SBE) participation level established at 25% for this contract.

**The Metropolitan Water District of Southern California**  
**Subcontractors for Low Bidder**  
**Specifications No. 1829**  
**Weymouth Water Quality Instrumentation Improvements**

Low bidder: Mehta Mechanical Company, Inc.

| <b>Subcontractor and Location</b>                 |
|---|
| J J Roofing<br>Riverside, CA                      |
| Amber Steel<br>Rialto, CA                         |
| J A Concrete Construction<br>Hacienda Heights, CA |
| LEED Electric, Inc.<br>Santa Fe Springs, CA       |

# Distribution System

