

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

September 12, 2006 Board Meeting

7-3

Subject

Appropriate \$160,000; and authorize final design of the Diemer West Washwater Tank Seismic Upgrades (Approp. 15322)

Description

The Robert B. Diemer Water Treatment Plant was placed into service in 1963 with an initial capacity of 200 million gallons per day (mgd). In 1969, the plant was expanded to a treatment capacity of 520 mgd. The plant delivers a blend of waters from the Colorado River and State Water Project to Orange County and parts of Metropolitan's Central Pool portion of the distribution system.

West Washwater Tank Seismic Upgrades – Final Design (\$160,000)

The West Washwater Tank at the Diemer plant is a 60-foot diameter by 80-foot tall steel tank with a storage volume of approximately 1.7 million gallons. Constructed in 1969, water from the tank is used to backwash the plant's westside filters. Backwashing is an essential step in the filtration process to clean the filter media. Due to the hydraulic configuration of the Diemer plant, the tank is filled by pumping filtered water into the tank. Water then flows out of the tank by gravity to backwash the westside filter beds. The East Washwater Tank performs a similar function for the eastside filter beds.

In June 2004, Metropolitan's Board authorized geotechnical studies, detailed seismic analyses, and preliminary design of upgrades to ensure reliability of the West Washwater Tank. The west tank was originally designed to industry standards in effect during the 1960s. As a result, the tank was not designed to resist current seismic criteria. Staff recommends that structural members be strengthened and additional anchor bolts be installed around the base of the washwater tank to transfer the seismic forces from the tank to the foundation. This work will be performed in conjunction with relining and recoating of the tank, which was previously authorized by the Board.

Kennedy/Jenks Consultants is recommended to perform final design of the Diemer West Washwater Tank Seismic Upgrades under an existing professional services agreement previously authorized by the Board. For this agreement, Metropolitan established a Small Business Enterprise participation level of 20 percent. No amendment to the Kennedy/Jenks Consultants agreement is required.

This action appropriates \$160,000 and authorizes final design of the Diemer West Washwater Tank Seismic Upgrades. The cost of final design is approximately 13.2 percent of the estimated construction cost. Engineering Services' goal for design of projects with construction cost less than \$3 million is 9 to 15 percent. Final design is scheduled to be completed by January 2007, with construction commencing in mid-2007.

This project has been evaluated and recommended by Metropolitan's Capital Investment Plan Evaluation Team and funds have been included within the fiscal year 2006/07 capital budget. See [Attachment 1](#) for the Financial Statement and [Attachment 2](#) for the Location Map.

Project Milestones

January 2007 – Completion of final design of Diemer West Washwater Tank Seismic Upgrades

July 2007 – Completion of construction of Diemer West Washwater Tank Refurbishment

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8121: General Authority of Chief Executive Officer to Enter Contracts

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The environmental effects from the design, construction and operation of the West Washwater Tank Refurbishment project were evaluated in the Robert B. Diemer Treatment Plant Subsequent Environmental Impact Report (Final SEIR), which was certified by the Board on April 11, 2006. 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. 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.

The CEQA determination is: Determine that the proposed action has been previously addressed in the certified 2006 Final SEIR, Findings, SOC, and MMRP and that no further environmental analysis or documentation is required.

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Appropriate \$160,000 in budgeted funds; and
- b. Authorize final design of the Diemer West Washwater Tank Seismic Upgrades.

Fiscal Impact: \$160,000 of budgeted funds under Approp. 15322

Business Analysis: This option will ensure reliability and continued operation of the West Washwater Tank.

Option #2

Defer final design of the Diemer West Washwater Tank Seismic Upgrades.

Fiscal Impact: Possible higher costs due to cost escalation

Business Analysis: Defer final design and construction of the seismic upgrades until 2010 when construction of various Diemer plant projects has been completed.

Staff Recommendation

Option #1



Roy L. Wolfe
Manager, Corporate Resources

8/18/2006
Date



Jeffrey Kightlinger
General Manager

8/23/2006
Date

Attachment 1 – Financial Statement

Attachment 2 – Location Map

BLA #4710

Financial Statement for Diemer Washwater Tanks Refurbishment Program

A breakdown of Board Action No. 3 for Appropriation No. 15322 is as follows:

	Previous Total Appropriated Amount (Sept. 2000)	Current Board Action No. 3 (Sept. 2006)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ -	\$ -	\$ -
Final Design	108,000	37,000	145,000
Owner Costs (Program management, bidding process)	57,000	13,000	70,000
Construction Inspection & Support	145,000	-	145,000
Metropolitan Force Construction	10,000	-	10,000
Materials and Supplies	15,000	-	15,000
Incidental Expenses	30,000	3,000	33,000
Professional/Technical Services			
Kennedy/Jenks	-	86,000	86,000
Equipment Use	10,000	-	10,000
Contracts	975,000	-	975,000
Remaining Budget	-	21,000	21,000
Total	\$ 1,350,000	\$ 160,000	\$ 1,510,000

Funding Request

Program Name:	Diemer Washwater Tanks Refurbishment Program		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15322	Board Action No.:	3
Requested Amount:	\$ 160,000	Capital Program No.:	15322-I
Total Appropriated Amount:	\$ 1,510,000	Capital Program Page No.:	E-29
Total Program Estimate:	\$ 2,025,500	Program Goal:	I-Infrastructure Reliability

