

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

September 14, 2004 Board Meeting

9-3

Subject

Appropriate \$5.95 million; and award a construction contract for \$3.726 million to Kiewit Pacific Co. for the Diemer Basin No. 8 Spillway Conduit for elimination of a potential cross connection (Approp. 15331)

Description

The Robert B. Diemer Filtration Plant (Diemer plant) was placed into service in 1963 with an initial capacity of 200 million gallons per day (mgd), and was expanded in 1969 to a design capacity of 520 mgd. The sedimentation basins at the Diemer plant were designed with a feature that allowed partially treated water to mix with fully treated, filtered water during a rare overflow/rejection episode. While this design approach was permissible at the time the plant was constructed, the California Department of Health Services (CDHS) has now classified this configuration as a potential cross connection. This condition originally existed at the plant's Sedimentation Basins Nos. 4 and 8, and CDHS requires that Metropolitan correct this deficiency. As an immediate mitigation measure to address the CDHS concerns, Metropolitan took Basins Nos. 4 and 8 out of service in the mid-1990s.

In February 1999, Metropolitan's Board authorized Phase 1 of this program to eliminate the potential cross-connection at Sedimentation Basin No. 4. Modifications to the Basin No. 4 spillway have been completed and Basin No. 4 is now back in service. Phase 2 of this program involves retrofitting Basin No. 8, which remains out of service. The temporary outage of Basin No. 8 has reduced the treatment capacity of the Diemer plant by approximately 85 mgd.

In August 2002, the Board authorized final design of the Diemer Basin No. 8 Spillway Conduit. This project will intercept water during an overflow condition and carry the overflow to nearby Telegraph Creek in Chino Hills State Park, thereby complying with CDHS requirements. This work was advertised for bids on July 7, 2004. As shown in [Attachment 3](#), a total of five bids were received and opened under Specifications No. 1468 for the Diemer Basin No. 8 Spillway Conduit Project. The low bid from Kiewit Pacific Co., in the amount of \$3.726 million, complies with the requirements of the specifications. The engineer's estimate was \$4 million. For this project, Metropolitan requires Small Business Enterprise participation of at least 21 percent of the total construction bid. Kiewit Pacific Co. has committed to meet this requirement.

This action awards a \$3.726 million construction contract to Kiewit Pacific Co. to construct the Diemer Basin No. 8 Spillway Conduit, and authorizes construction inspection and support, environmental monitoring, and mitigation for this project. Metropolitan staff will perform construction management for the work. The anticipated cost of inspection and support for this project is 11.5 percent of the construction cost. The Engineering Services goal for inspection of projects with construction cost less than \$10 million is 12 to 15 percent.

This project has been evaluated and recommended by Metropolitan's Capital Investment Plan Evaluation Team. Within the fiscal year 2004/05 capital budget, \$4.21 million has been included for the Diemer Sedimentation Basin Spillways Program. This amount was estimated based on the anticipated scope of construction and mitigation within Chino Hills State Park. Subsequent to preparation of the fiscal year 2004/05 budget, the final scope of items such as environmental monitoring, landscape plantings and maintenance, and purchase of mitigation property were finalized. An additional \$1.74 million in unbudgeted funds is requested to complete this program. Expenditure of this additional amount will take place during fiscal year 2005/06, when it will be budgeted. No adjustment of the fiscal year 2004/05 capital expenditure plan will be required as a result of this

action. See [Attachment 1](#) for the detailed report, [Attachment 2](#) for the abstract of bids, [Attachment 3](#) for the financial statement, and [Attachment 4](#) for the location map.

Policy

Metropolitan Water District Administrative Code § 5108: Capital Project Appropriation

Metropolitan Water District Administrative Code § 8113: Construction Contract Award

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The environmental effects from the design, construction, and operation of the Diemer Settling Basin No. 8 Spillway Conduit were evaluated in the Robert B. Diemer Filtration Plant Improvements Project Final EIR, which was certified by the Board on February 13, 2001. The Board also approved the Findings of Fact (findings), the Statement of Overriding Considerations (SOC), the Mitigation Monitoring and Reporting Program (MMRP), and the overall improvements project itself. Subsequently, major modifications were recommended by staff to the approved Diemer Settling Basin No. 8 Spillway Conduit and other project components that necessitated the preparation and processing of the Robert B. Diemer Filtration Plant Improvements Project Final Supplemental Environmental Impact Report (Final SEIR), which was certified by the Board on August 20, 2002. During that same meeting, the Board approved the amended findings, the amended SOC, and amended MMRP, along with the proposed project modifications. By 2004, in order to accommodate certain site preparation activities, staff had determined that minor changes were needed with regards to the construction techniques and schedule previously developed for the original improvements project. As a result, Addendum No. 2 to the Final EIR was prepared and processed. On March 9, 2004, the Board then certified this addendum and approved these minor technical changes to the original project, including the Diemer Settling Basin No. 8 Spillway Conduit. The current board actions would not result in any further changes to the original improvements project and its approved modifications. Hence, the previous environmental documentation taken by the Board in conjunction with the proposed actions fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act on the proposed actions.

The CEQA determination is: Determine that the proposed actions have been previously addressed in the certified 2001 Final EIR, 2002 Final SEIR, 2004 Addendum No. 2, along with the approved and amended documentation (i.e., findings, SOC, and MMRP to the Final EIR and Final SEIR), and that no further environmental analysis or documentation is required.

CEQA determination for Option #2:

None required

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determination and

- a. Appropriate \$5.95 million in capital funds; and
- b. Award a construction contract for \$3.726 million to Kiewit Pacific for the Diemer Basin No. 8 Spillway Conduit.

Fiscal Impact: \$4.21 million of budgeted and \$1.74 million of unbudgeted capital funds under Approp. 15331. Since the \$1.74 million will be expended during FY 2005/06, no adjustment of the FY 2004/05 capital expenditure plan is required.

Option #2

Do not award a contract for the Diemer Basin No. 8 Spillway Conduit, and re-advertise the project.

Fiscal Impact: None for the FY 2004/05 budget. Re-bidding the project will delay the construction schedule because environmental permitting constraints related to vegetation removal and planting limit the construction activities to the winter and spring periods of 2004/05. In addition, Basin No. 8 will remain out of service.

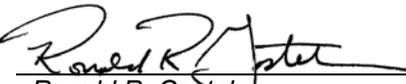
Staff Recommendation

Option #1



Roy L. Wolfe
Manager, Corporate Resources

8/20/2004
Date



Ronald R. Gastelum
Chief Executive Officer

8/24/2004
Date

Attachment 1 – Detailed Report

Attachment 2 – Abstract of Bids

Attachment 3 – Financial Statement

Attachment 4 – Location Map

BLA #1903

Detailed Report

The Robert B. Diemer Filtration Plant (Diemer plant) was placed into service in 1963 with an initial capacity of 200 million gallons per day (mgd), and expanded in 1969 to a design capacity of 520 mgd. The plant delivers treated water to Orange County and areas of Metropolitan's Central Pool portion of the distribution system.

Purpose/Background

The east side of the Diemer plant was constructed in 1963, followed by the west side of the plant in 1969. Both sides of the Diemer plant were originally designed and constructed such that the sedimentation basins' rejection flow (at Sedimentation Basins Nos. 4 and 8) would overflow into the common filtered water effluent conduit to the finished water reservoir. After the plant's construction, the California Department of Health Services (CDHS) determined that this type of overflow or rejection capability is inappropriate, as it creates a potential cross connection between unfiltered and filtered water. As a result, temporary modifications and operational changes were made to both sides of the plant to prevent a cross connection should an overflow occur. In addition, Sedimentation Basins Nos. 4 and 8 were taken out of service to provide sufficient response time in case an overflow seemed imminent. In February 1999, Metropolitan's Board authorized Phase 1 of this program, which removed the potential cross connection at the east basins by constructing the Basin No. 4 spillway conduit. Phase 1 work is complete and Basin No. 4 has been returned to service in compliance with the CDHS requirements.

In August 2002, the Board authorized final design of Phase 2 of this program to remove the potential cross connection at the plant's west basins. This project will allow Basin No. 8 to be returned to service, which will restore approximately 85 mgd of plant capacity. This Phase 2 project will intercept water during an overflow condition at Basin No. 8 and will convey the water via a new conduit down the north slope of the Diemer plant, to a new discharge point at Telegraph Creek in Chino Hills State Park. In addition, Basin No. 8 is under the jurisdiction of the California Division of Safety of Dams (DSOD), which must approve the spillway system. Staff has acquired permanent and temporary easements, environmental permits, and DSOD approval for construction of the Basin No. 8 spillway conduit. Upon completion of this project, Basin No. 8 will comply with CDHS requirements.

Project Description

The Basin No. 8 Spillway Conduit project consists of an 84-inch diameter steel pipeline, an energy dissipater at the end of the spillway conduit, a 15-foot wide by 44-foot long bridge, and other appurtenant work. The Southern California Gas Company will also relocate a 2-inch gas service line to the Diemer plant. Coordination efforts will be required with DSOD and the California Department of Parks and Recreation.

Bid Results and Business Outreach

As shown in Attachment 2, five bids were received and opened under Specifications No. 1468 for the Diemer Basin No. 8 Spillway Conduit project. The low bid from Kiewit Pacific Co. in the amount of \$3.726 million, complies with the requirements of the specifications. The engineer's estimate was \$4 million. For this project, Metropolitan requires Small Business Enterprise participation of at least 21 percent of the total construction bid. Kiewit Pacific Co. has committed to meet this requirement.

Cost Estimate

Attachment 3 shows the total requested funding of \$5.95 million for the construction phase of this project. Metropolitan staff will perform construction management for this project, with support from consultants for biological monitoring and geotechnical reviews.

Project Milestones

- December 2004 – Issue Notice to Proceed
- May 2006 – Complete construction

The Metropolitan Water District of Southern California

Abstract of Bids Received on August 11, 2004 at 2:00 P.M.

Specifications No. 1468

Robert B. Diemer Filtration Plant Settling Basin No. 8 Spillway Conduit

The contract consists of constructing an 84-inch diameter fabricated steel pipe conduit, constructing a closure wall, constructing an energy dissipater at the end of the spillway conduit, removing existing culverts, constructing a 15-foot wide by 44-foot long bridge, relocating existing 8-inch mortar lined steel pipe, landscaping, asphalt paving, and other appurtenant work.

Engineer's Estimate: \$4,000,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE*
Kiewit Pacific Co., Santa Fe Springs, CA	\$3,726,000	\$800,000	21.47%	Yes
Griffith Company, Santa Fe Springs, CA	\$4,380,000	N/A	N/A	N/A
Mladen Buntich Construction Co., Upland, CA	\$4,738,000	N/A	N/A	N/A
SRD Engineering Inc., Anaheim, CA	\$4,948,362	N/A	N/A	N/A
Steve Bubalo Construction Co., Monrovia, CA	\$7,161,000	N/A	N/A	N/A

* SBE (Small Business Enterprise) participation set at 21 percent
N/A – Not Applicable

Financial Statement for Diemer Sedimentation Basins Spillways

A breakdown of Board Action No. 4 for Appropriation No. 15331 for the Diemer Filtration Plant Sedimentation Basins Spillways Program is as follows:

	Previous Board Action No. 3 (Aug. 2002)	Current Board Action No. 4 (Sept. 2004)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 200,000	\$ 0	\$ 200,000
Preliminary Design	120,000	0	120,000
Final Design	533,000	0	533,000
Construction Inspection and Support	155,000	458,000	613,000
Owner Costs (Program management, environmental monitoring)	338,000	356,000	694,000
Metropolitan Force Installation and Construction	75,000	20,000	95,000
Materials and Supplies	38,000	5,000	43,000
Right-of-Way (Mitigation land purchase)	0	120,000	120,000
Incidental Expenses	13,000	10,000	23,000
Professional/Technical Services (Environmental monitoring)	140,000	229,000	229,000
Equipment Use	22,000	5,000	27,000
Contracts	600,000	3,971,000	4,571,000
Remaining Budget	556,000	776,000	1,332,000
Total	\$2,790,000	\$5,950,000	\$8,740,000

Funding Request

Program Name:	Diemer Filtration Plant – Construct Sedimentation Basins Spillways		
Source of Funds:	Construction Funds (Possibly Revenue Bonds, or General Fund)		
Appropriation No.:	15331	Board Action No.:	4
Requested Amount:	\$ 5,950,000	Capital Program No.:	15331-W
Total Appropriated Amount:	\$ 8,740,000	Capital Program Page No.:	E-23
Program Estimate:	\$ 8,740,000*	Program Goal:	W- Water Quality

*Total Program Estimate revised from \$7 million to reflect this board action.

