

May 14, 1999

**To:** Board of Directors (Engineering and Operations Committee—Action)

**From:** General Manager \_\_\_\_\_

**Submitted by:** Gary M. Snyder  
Chief Engineer \_\_\_\_\_

**Subject:** Appropriate \$2,860,000 and Award a Contract for Construction of North Slope Remediation for Settling Basin No. 8 at the Robert B. Diemer Filtration Plant

**Reference:** Appropriation No. 15220

### RECOMMENDATION(S)

To construct North Slope Remediation for Settling Basin No. 8 (Basin 8) at the Robert B. Diemer Filtration Plant (Diemer plant), it is recommended that the Board:

1. Appropriate \$2,860,000 to finance all budgeted costs; and
2. Award a lump-sum construction contract, in form approved by the General Counsel, to Mitchell Pacific Constructors, Inc., in the amount of \$2,216,764.

### EXECUTIVE SUMMARY

The foundations for the Diemer plant and Basin 8 were constructed on compacted fill material and have not experienced any movement since their original construction. However, the ground surface of the plant's north slope, located immediately adjacent to Basin 8, has moved approximately one and a half feet down-slope since movement was first observed in 1965. This movement is a concern because the slope is next to a jurisdictional water-bearing basin and contains water treatment conduits and a natural gas pipeline. Consequently, the State of California Division of Safety of Dams (DSOD) has directed Metropolitan to remediate the slope and the underlying soil conditions which have been identified as causes of the slope movement. The design activities required to remediate the slope have been completed and construction is required to complete the program.

Approval of these recommendations will authorize the award of a contract in the amount of \$2,216,764 to Mitchell Pacific Constructors, Inc., the low bidder for Specifications No. 1274, as amended, for the construction of slope remediation adjacent to Basin 8 at the Diemer plant. The total estimated cost of the program is \$3,420,000.

## **JUSTIFICATION**

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The proposed action will comply with DSOD's requirements and prevent continued movement of the slope that could result in possible damage to water treatment conduits, a natural gas pipeline and to Basin 8.

## **ALTERNATIVE TO PROPOSED ACTION**

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### **Do Not Remediate the Slope**

There are no alternatives to implementing a slope remediation program. Failure of Metropolitan to satisfactorily strengthen the slope will impose increasing risk to the structural integrity of Basin 8 and the adjacent conduits as well as expose Metropolitan to DSOD enforcement action. DSOD, as a State regulating agency, has directed that corrective action be taken or Metropolitan could face decertification of Basin 8.

### **Delay Remediation of the Slope**

Delay of the slope remediation could cause DSOD to decertify Basin 8. If DSOD decertified Basin 8, the Diemer plant could continue to operate. However, this would result in a reduction in capacity of the plant and increase the potential for damage to the affected pipelines and Basin 8.

## **FUNDING REQUEST**

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<b>Program Name:</b> Diemer Filtration Plant - Settling Basin No. 8 - North Slope Remediation			
<b>Source of Funds:</b> Construction Funds (See Attachment C, Financial Statement)			
<b>Appropriation No.:</b> 15220	<b>Board Action No.</b> 2	<b>Total Budget:</b> \$1,990,000*	
<b>Requested Amount:</b> \$2,860,000	<b>Capital Program No.:</b> 15220-A		
<b>Total Appropriated Amount:</b> \$3,420,000	<b>Capital Program Page No.:</b> E-27		
<b>Total Program Estimate:</b> \$3,420,000*	<b>Program Category:</b> Asset/System Integrity		

The Total Program Estimate is \$1,430,000 greater than the budget due to the actual cost of the construction contract. Construction costs are greater than originally estimated because of required DSOD updated design configurations.

## MBE / WBE

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The specifications, as amended, established mandatory subcontracting requirements (MSR) and required the bidder to conduct a good-faith effort to encourage participation of minority- and women-owned business enterprises (MBE/WBE). The MSR for this project was 14 percent and 22.1 percent of the work will be subcontracted. The Anticipated Levels of Participation for MBE/WBE firms were established at 3 percent and 1 percent respectively. The contractor's proposed MBE participation was 0 percent with 4.11 percent submitted for WBE. The Business Outreach Office has reviewed the good-faith effort submitted by Mitchell Pacific Constructors, Inc., and has deemed it acceptable in meeting the criteria set forth in the specifications. The MBE/WBE subcontractors are listed on Attachment A.

## ACTIONS AND MILESTONES

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- June 1993 - Appropriated \$560,000 for design of slope remediation for Basin 8 at the Diemer plant (Initial Board Action)
- February 2000 - Complete construction of slope remediation.

## CEQA COMPLIANCE / ENVIRONMENTAL DOCUMENTATION

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In May 1993, the Board determined that this project is exempt from the provisions of the California Environmental Quality Act (CEQA) because it consists of the restoration of a deteriorated structure to meet current standards of public health and safety involving no expansion of use beyond that previously existing (State CEQA Guidelines, Section 15301).

## CONTRACT SUMMARY

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<b>Contract Status:</b>	New	<b>Type of Selection:</b>	Competitive Bid, Specifications No. 1274
<b>Contract Form:</b>	Construction	<b>Contractors Requesting Plans:</b>	23
<b>Contract Type:</b>	Lump sum	<b>Bids Submitted:</b>	4
<b>Evaluation Criteria:</b>	Low bid that meets the requirements of the specifications.		

## DETAILED REPORT

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The Diemer plant is situated on top of a hill and confined on all sides by steep slopes that were configured through extensive earthwork during the original construction of the facility. The surface of the slope adjacent to Basin 8 has a history of instability beginning with observations of down-slope movement starting in 1965. Subsequently, cracking in the asphalt pavement on the slope benches began to occur which prompted staff to expand their routine inspection program to include precise survey measurements. Because excess soil moisture can exacerbate soil instability, all nearby landscape irrigation was discontinued indefinitely as well. Due to the size and configuration of Basin 8, its

northernmost perimeter wall is considered to be a dam and falls under the regulatory authority of the DSOD. As a result, Metropolitan notified DSOD of the slope movement in its routine inspection reports that are required of all dam owners.

Initially, DSOD requested that Metropolitan continue monitoring and reporting on the behavior of the slope and complete an investigation and study followed by submittal of a plan to DSOD for stabilizing the slope. Subsequently, DSOD approved the plan and directed Metropolitan to complete design of a strengthening system and submit construction drawings and specifications to their agency for review and approval. In June 1993, the Board approved an appropriation for \$560,000 to complete all work in advance of award of a construction contract. Staff selected the geotechnical consultant Dames and Moore, on a competitive basis, to complete all design and geotechnical work and the construction drawings and specifications. In compliance with DSOD guidelines, the 90 percent complete construction specifications was submitted to DSOD for review but was rejected because it did not include, in their view, sufficient remediation of the slope. As a result, a revised design was submitted and is nearing approval. This revised expanded construction effort, as a result of DSOD's direction, has increased the total program cost from the 1993 estimate of \$1,990,000 to \$3,420,000.

Work under this contract consists of first installing a soldier-pile shoring system to a depth of 15 feet into competent soil down-slope of the plant and natural gas pipelines. The shoring system will confine and stabilize the soil supporting the basin and pipelines while the remaining down slope material is removed and recompacted with geosynthetic soil reinforcement.

Four bids were received and opened under Specifications No. 1274, as amended, for construction of the slope remediation project. These bids are shown on the attached Abstract of Bids (Attachment B). The apparent low bidder, Fleming Environmental, Inc., requested relief from its bid due to a clerical mistake which materially changed the bid. In accordance with Section 5100 of the California Public Contract Code, Metropolitan granted Fleming relief from its bid. The low bid from Mitchell Pacific Constructors, Inc., in the amount of \$2,216,764 complies with requirements of the specifications, is \$284,236 below the next lowest bid, and is \$266,764 above the Engineer's Estimate. Mitchell Pacific Constructors, Inc., will construct the slope remediation and perform appurtenant work. Metropolitan forces will perform construction management, contract administration and field inspection. A breakdown of the total estimated project costs is shown on Attachment C.

JIMmg:rev8  
(Diemer Slope)

**Attachment 9-5A**

**Attachment 9-5B**

**Attachment 9-5C**

**Attachment 9-5A**

**MBE/WBE PARTICIPATION**

**Specifications No. 1274, as Amended**

**Name of Bidder: Mitchell Pacific Constructors, Inc.**

**MBE/WBE Participation Levels: 3% MBE and 1% WBE**

<b>Name of Certified MBE/WBE Subcontractor/Supplier</b>	<b>Work to Be Performed or Materials To Be Supplied</b>	<b><u>Participation</u></b>	
		<b><u>MBE%</u></b>	<b><u>WBE%</u></b>
Natures Image Lake Forest, CA	Landscaping	0%	4.11%
	<b>Total Committed Participation</b>	<b>0%</b>	<b>4.11%</b>

**Attachment 9-5B****The Metropolitan Water District of Southern California****Abstract of Bids Received May 14, 1999, at 10:00 a.m.****Specifications No. 1274, as Amended****Robert B. Diemer Filtration Plant****North Slope Remediation Settling Basin No. 8**

The project consists of excavating and recompacting the fill material at the lower portion of the slope, reinforcing the lower portion of the slope with geosynthetic material, supporting the upper portion of the slope with a Contractor-designed, -furnished and -installed temporary soldier pile-tieback shoring system, construction of irrigation systems, landscape planting, landscape maintenance, and performing other appurtenant work as specified and shown on the drawings.

**Engineer's Estimate:            \$1,950,000**

<b>Bidder &amp; Location</b>	<b>Item 1 Mobilization</b>	<b>Item 2 Construction</b>	<b>Item 3 Landscape Maintenance</b>	<b>Total of Items 1 through 3</b>
*Fleming Environmental, Inc. - Buena Park, CA	\$50,000	\$2,134,000	\$3,000	\$2,187,000
Mitchell Pacific Constructors, Inc. - Palm Springs, CA	\$50,000	\$2,163,764	\$3,000	\$2,216,764
C. A. Rasmussen, Inc. - Corona, CA	\$50,000	\$2,448,000	\$3,000	\$2,501,000
Clarke Contracting Corporation - Lawndale, CA	\$50,000	\$2,921,000	\$3,000	\$2,974,000

\*Low bidder, Fleming Environmental, Inc., requested relief from its bid due to a clerical mistake made during the final compilation and filling out of Document 00310 Bidding Sheet, which materially changed the bid. In accordance with Section 5100 of the California Public Contract Code, Metropolitan granted Fleming relief from its bid.

## Attachment 9-5C

FINANCIAL STATEMENT

(Capital Program No. 15220-A)

The breakdown of the total estimated cost for Board Action Nos. 1 and 2 for slope remediation for Basin 8 at the Diemer filtration plant is shown below:

	BOARD ACTION NO. 1 (June 1993)	BOARD ACTION NO. 2 (June 1999)
Contract - Specifications No. 1274 Low Bid Received May 14, 1999	\$ 0	\$2,216,764
Labor:		
Engineering		
Final Design/Specification Preparation	\$ 178,000	\$ 178,000
Construction Support	0	46,000
Field Inspection/Soils & Concrete	0	121,000
Contract Administration	0	36,000
Other Divisions		
Environmental/Permitting	11,000	17,000
Operations/Other	<u>11,000</u>	<u>14,000</u>
<b>Subtotal Labor</b>	<b>\$200,000</b>	<b>\$ 412,000</b>
Material and Supplies	2,000	4,000
Incidental Expenses	2,000	8,000
Professional/Technical Services	170,000	220,000
Operating Equipment	2,000	5,000
Gas Co. Line relocation		30,000
Contingencies	<u>74,000</u>	<u>297,236</u>
<b>Subtotal Other Direct</b>	<b>\$250,000</b>	<b>\$ 564,236</b>
Administrative Overhead	<u>110,000</u>	<u>227,000</u>
<b>Total</b>	<b><u>\$560,000</u></b>	<b><u>\$3,420,000</u></b>
Estimated Funds Required:		
Initial		\$ 560,000
Board Action No. 2		2,860,000
Total		<u>\$3,420,000</u>

Source of Funds: Construction Funds, including the General Obligation Bond Construction Fund, the Water Revenue Bond Construction Fund, the Commercial Paper Note Construction Fund, and the Pay-As-You-Go Construction Fund.

Projected Expenditures of Funds :

Through Fiscal Year 1998/99	573,000
Fiscal Year 1999/00	2,549,764
Contingencies	<u>297,236</u>
<b>Total</b>	<b><u>\$3,420,000</u></b>

Capital Program for Fiscal Year 1998/99:

Total Budget	\$1,990,000
Program Estimate for FY 1998/99	\$837,100

## Diemer Basin 8 Slope Remediation

Total Budget: \$3,420,000

