

October 20, 1998

**To:** Board of Directors (Budget and Finance Committee--Action)  
(Engineering and Operations Committee--Action)

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

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

**Subject:** Appropriate \$580,000 for Repair to the Sepulveda Feeder Pipeline

**Reference:** Appropriation No. 15348

## RECOMMENDATIONS

To repair the Sepulveda Feeder pipeline it is recommended that the Board:

1. Appropriate \$580,000 to finance all estimated costs; and
2. Authorize the General Manager to have all work performed using Metropolitan forces.

## EXECUTIVE SUMMARY

In September 1998, an external investigation of a damaged portion of the Sepulveda Feeder revealed cracking at a joint and corrosion of the prestressing wires. To prevent a possible failure of the pipe joint it is proposed to install an internal steel band inside the damaged section of pipe. The total estimated cost of the repair is \$580,000. Staff is reallocating budgeted funds from the Future System Reliability Program to cover the cost of this project.

## JUSTIFICATION

The repair to the pipeline will prevent possible failure and ensure that the existing distribution system remains operational and reliable.

## ALTERNATIVE TO PROPOSED ACTION

### **Remove and Replace Both Pipe Sections**

Removing and replacing pipe sections on either side of the crack would bring the feeder back to its original constructed condition. This alternative would require removal of approximately 32 feet of pipe and some associated encasements. The cost and time required to perform this alternative is much greater than the proposed installation of an internal steel band.

## FUNDING REQUEST

<b>Program Name:</b> Sepulveda Feeder - Repair Pipeline at Station 150+76			
<b>Source of Funds:</b> Pay-as-You-Go Fund			
<b>Appropriation No.:</b>	15348	<b>Board Action No.:</b>	1
		<b>FY 98/99 Budget Estimate:</b>	\$250,000*
<b>Requested Amount:</b>	\$580,000	<b>Capital Program No.:</b>	N/A
<b>Total Appropriated Amount:</b>	\$580,000	<b>Capital Program Page No.:</b>	N/A
<b>Total Program Estimate:</b>	\$580,000*	<b>Program Category:</b>	A - Asset/System Integrity

\*Prior to excavation and external inspection, it was anticipated that this project could be included under Capital Programs for Projects Costing Less than \$250,000 (Program No. 98900-A).

## ACTIONS AND MILESTONES

- Complete Design by October 1998
- Complete Construction by December 1998

## CEQA COMPLIANCE / ENVIRONMENTAL DOCUMENTATION

The proposed project qualifies for categorical exemption under the California Environmental Quality Act (CEQA) because it consists of the repair of an existing public facility involving no use beyond that previously existing (State CEQA Guidelines, section 15301). A Notice of Exemption was filed with the Los Angeles County Clerk on July 27, 1998. No other environmental documentation is required for this project.

## DETAILED REPORT

Metropolitan has approximately 170 miles of large diameter prestressed concrete cylinder pipe (PCCP) in its distribution system. Because of on-going problems with PCCP throughout the world, Metropolitan has an on-going inspection program to monitor and repair its PCCP. In January 1998, during a routine internal inspection, a damaged pipe joint was found on the Sepulveda Feeder at Station 150+76. Water was found leaking through the joint into the pipeline. In order to determine the extent of damage an external inspection was performed in September. This inspection required extensive excavation and shoring and revealed cracking near the joint and corrosion of the prestressing wires. Given the extent of damage, staff recommends immediate repair of the pipe.

The Sepulveda Feeder at this location is a 12 foot 6 inch inside diameter pipeline. The location of the damaged joint is directly adjacent to the Knollwood Golf Course as well as a number of single-family residences and two churches. The pipe is approximately 35-40 feet deep with groundwater present which has to be continuously pumped out to facilitate the repair. In addition, extensive monitoring is required due to the presence of hydrogen sulfide gas.

Immediately adjacent to the repair site are two large storm drains and several other utilities which restrict the work area.

The recommended repair involves installation of an internal steel band inside the damaged pipe section. The space between the existing pipe and the new steel band will be pressure grouted. All work will be performed by Metropolitan personnel to expedite repairs during a scheduled five-day shutdown of the pipeline beginning November 16, 1998. The total estimated cost of this program is \$580,000, including contingencies.

The proposed project was not a separate program in the Capital Budget for Fiscal Year 1998/99, since the initial cost was estimated to be within the appropriation limits for capital projects costing less than \$250,000. However, following excavation and external inspection of the pipe, it was determined that the less expensive option of sealing the crack was not feasible. Staff is reallocating budgeted funds from the Future System Reliability Program to cover the cost of this project. A breakdown of all costs for this proposed repair is contained in the Financial Statement, Attachment A.

LS/mg:rev6

## **Attachment 7-1A**

## Attachment 7-1A

FINANCIAL STATEMENT

A breakdown of the Board Action No. 1 for Appropriation No. 15348 to finance repair to the Sepulveda Feeder is as follows:

	<u>BOARD ACTION NO. 1</u>
Labor:	
Engineering	
Study and Preliminary Design	\$ 13,000
Design	18,000
Program Management	7,000
Operations	
Initial Investigation	59,000
District Forces Construction	<u>105,000</u>
<b>Total Labor</b>	<b>\$202,000</b>
Material and Supplies	\$100,000
Professional & Technical Services (Security)	17,000
Incidental Expenses	35,000
Operating Equipment	55,000
Administrative Overhead	110,000
Contingencies	<u>61,000</u>
<b>Total</b>	<b><u>\$580,000</u></b>
Source of Funds: Pay-as-You-Go	
Projected Expenditures of Funds:	
Through Fiscal Year 1998/99	\$519,000
Contingencies	<u>61,000</u>
<b>Total</b>	<b>\$580,000</b>