



**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

MAR 12 1996

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*Dawn Chin*  
for EXECUTIVE SECRETARY

February 20, 1996

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

**From:** General Manager *Walter Horn*

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

**Subject:** Appropriation No. 724 in the Amount of \$2,850,000 to Finance All Estimated Costs for Design, Fabrication, and Installation of a Steel Liner in a Portion of the Second Lower Feeder and Delegation of Authority to Award a Contract

#### RECOMMENDATIONS

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It is recommended that your Board authorize the General Manager to install a steel liner in a portion of the Second Lower Feeder and delegate to the General Manager the authority to award a contract in form approved by the General Counsel for performance of such work.

It is recommended that your Board approve Appropriation No. 724 in the amount of \$2,850,000 from the Pay-As-You-Go Fund, to finance all estimated costs for design, fabrication, and installation of a steel liner in a portion of the Second Lower Feeder.

#### EXECUTIVE SUMMARY

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During a routine inspection of the Second Lower Feeder, a leak was detected in the prestressed concrete cylinder pipe. Studies were undertaken and it was determined that a steel liner is required to reinforce a weakened section of prestressed concrete cylinder pipe to prevent further leaks in an area of highly corrosive soil. This appropriation of \$2,850,000 is to finance all estimated costs for the design, fabrication and installation of a steel liner in a portion of the Second Lower Feeder as a result of corrosion of the pipe wall. District forces will fabricate the steel liner and fittings. The liner and fittings will be installed by a contractor hired through a competitive bidding procedure. It is imperative that the Second Lower Feeder be placed back in service by July 1, 1996, to meet water demands.

**CAPITAL FUNDING REQUEST**

<b>Project Name:</b> Install Steel Liner in Second Lower Feeder	
<b>Appropriation No.:</b> 724	<b>Funding Request No.:</b> Initial <b>Amount:</b> \$2,850,000
<b>Source of Funds:</b> Pay-As-You-Go Fund	
<b>FY 95-96 Budget:</b> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> @ \$	<b>Capital Program:</b> <b>Page No. Reference:</b>
<b>Project Justification and Type:</b> (check all applicable)	
<input type="checkbox"/> Meet Water Demands	<input type="checkbox"/> New Facility
<input type="checkbox"/> Mandated By Law	<input type="checkbox"/> Improvement
<input checked="" type="checkbox"/> Asset Protection/Risk Mgt.	<input type="checkbox"/> Replacement
<input type="checkbox"/> Cost Avoidance	<input type="checkbox"/> Expansion
<input type="checkbox"/> Other	

**PURPOSE/BACKGROUND**

The Second Lower Feeder is a critical water delivery pipeline. The pipeline is a highly pressurized 78-inch prestressed concrete cylinder pipe constructed in the late 1960s and located in a densely populated area. In December 1995, during a routine inspection of the dewatered pipeline, groundwater was observed flowing through a crack in the pipe wall under the Dominguez Channel. Soils in this area are highly corrosive. Staff suspects that corrosion has severely compromised the integrity of the pipe, necessitating a repair. It is necessary to protect a portion of the pipeline in the area of highly corrosive soil below and adjacent to the Dominguez Channel. This pipeline must be repaired and in service by July 1, 1996, to meet projected water delivery needs. It is proposed to install 1,000 feet of steel liner that is 5/8 inch thick and 5.5 feet in diameter. Once installed, the annular space between the new steel liner and the existing pipe wall will be filled with grout. Metropolitan will perform final design, preparation of specifications and fabrication of the steel liner. Installation will be performed by a contractor hired through a competitive bidding procedure. This letter also seeks your Board's approval of a delegation of authority to the General Manager to award the contract in order that construction be completed by the time the pipeline is needed in service. Further studies are under way to determine if additional lining will be required.

Class: One--Projects directly related to delivery of water, required for health and safety, or mandated by governmental requirements.

**BENEFIT**

The benefit of this project is it will return the Second Lower Feeder to service.

<b><u>PROJECT PLAN:</u></b>		Install Steel Liner in Second Lower Feeder				
<b>PHASE</b>	<b>ESTIMATED COST</b>	<b>% COMPLETE</b>	<b>COST THRU FEB. 1996</b>	<b>FY 1995-96</b>	<b>FY 1996-97</b>	<b>FY 1997-98</b>
Study/Final Design	\$ 300,000	30%	\$90,000	-		
Advertise/Award	\$ 25,000	0%	0	-		
Construction	\$2,105,000	0%	0	-		
Contingency	\$ 420,000	0%	0			
<b>TOTAL</b>	<b>\$2,850,000</b>					

**ALTERNATIVES TO PROPOSED ACTION**

The alternative to the proposed project is to remove and replace a 1,000-foot-long section of the Second Lower Feeder or construct a new parallel pipeline.

**CEQA COMPLIANCE / ENVIRONMENTAL DOCUMENTATION**

This proposed action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA), in that it consists of the repair of an existing public structure involving negligible, or no expansion of, use beyond that previously existing (State CEQA Guidelines, Section 15302).

**FINANCIAL STATEMENT**

The breakdown of the total estimated cost for design, fabrication, and installation of a steel liner in a portion of the Second Lower Feeder is shown below:

	<u>Cost Estimate</u>
Labor:	
Final Design	\$ 180,000
Field Fabrication	200,000
Contract Administration and Field Inspection	<u>120,000</u>
Subtotal Labor	\$ 500,000
Materials and Supplies	220,000
Incidental Expenses	30,000
Professional/Technical Services	60,000
Right-of-Way and Land Purchases	300,000
Operating Equipment	40,000
Administrative Overhead	280,000
Contract	1,000,000
Contingencies	<u>420,000</u>
Total	<u>\$2,850,000</u>

Source of Funds: Pay-as-you-go Fund

Class: One--Projects directly related to delivery of water, required for health and safety, or mandated by governmental requirements.

Projected Expenditures of Funds:

Through Fiscal Year 1995/96	\$1,900,000
Fiscal Year 1996/97	530,000
Contingencies	<u>420,000</u>
Total	<u>\$2,850,000</u>

Capital Program for Fiscal Year 1995/96:

This program was not included in the Capital Program for Fiscal Year 1995/96 because the crack in the pipeline was discovered during a routine inspection in December, 1995.