

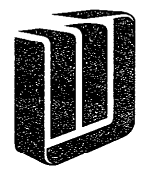
APPROVED
By the Board of Directors of
The Metropolitan Water District
of Southern California
at its meeting held

41644

NOV 14 1995

Karen E. Duff
EXECUTIVE SECRETARY

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MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

October 24, 1995

To: Board of Directors (Engineering and Operations Committee--Action)
(Finance and Insurance Committee--Action)
From: General Manager
Subject: Appropriation No. 720 for \$858,000 to Finance All Estimated Costs to Repair
Deteriorated Joints in the Colorado River Aqueduct (CRA) Lakeview Siphon First Barrel

RECOMMENDATION:

It is recommended that your Board authorize the General Manager to have all work performed for the repair of deteriorated joints in the CRA Lakeview Siphon First Barrel, and negotiate and execute a construction contract with Miller Pipeline Company in accordance with the terms of this letter and in a form approved by the General Counsel.

It is recommended that your Board approve Appropriation No. 720 in the amount of \$858,000 from the Pay-As-You-Go Fund to finance all estimated costs for the repair of deteriorated joints in the CRA Lakeview Siphon First Barrel.

John R. Wodraska
General Manager

Submitted by:

Gary M. Snyder
Gary M. Snyder
Chief Engineer

Concur:

John R. Wodraska
John R. Wodraska
General Manager

CAPITAL FUNDING REQUEST	
PROJECT NAME:	COLORADO RIVER AQUEDUCT (CRA) LAKEVIEW SIPHON FIRST BARREL JOINT REPAIR

APPROPRIATION No.: 720	FUNDING REQUEST No.: NEW	AMOUNT: \$ 858,000
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SOURCE OF FUNDS: PAY-As-YOU-GO

FY 95/96 BUDGET: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> @	CAPITAL PROGRAM PAGE NO. REFERENCE: N/A
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<u>PROJECT JUSTIFICATION AND TYPE:</u>		
<input type="checkbox"/> MEET WATER DEMANDS	<input type="checkbox"/> NEW FACILITY	<input type="checkbox"/> REPLACEMENT
<input type="checkbox"/> MANDATED BY LAW	<input checked="" type="checkbox"/> IMPROVEMENT	<input type="checkbox"/> EXPANSION
<input checked="" type="checkbox"/> ASSET PROTECTION/RISK MGT.		
<input type="checkbox"/> COST AVOIDANCE		
<input type="checkbox"/> OTHER _____		

<p><u>Project Description:</u></p> <p>In Riverside County, the Colorado River Aqueduct (CRA) transitions to a dual two-mile pipeline known as the Lakeview Siphon First and Second Barrels. The Lakeview Siphon First Barrel is a 12-foot, 4-inch monolithic concrete pipe constructed in 1938 as part of the original CRA construction. Over the years, the joints in the pipeline have deteriorated which has caused the pipeline to leak at unacceptable rates. In 1988 and 1994, the joint deterioration in two locations became so severe that it resulted in the flooding of adjoining properties and required emergency repairs by District Forces.</p> <p>In February 1995, staff performed an internal inspection of the Lakeview Siphon First Barrel to determine the overall condition of the pipeline and the pipeline joints. The pipeline was found to be structurally sound and in generally good condition. As expected though, many of the pipeline joints had deteriorated and were found to be cracked and experiencing varying levels of leakage. Of the 206 pipeline joints inspected, 120 have been identified as requiring repair. It is estimated that, due to these deteriorated joints, this pipeline is currently leaking at a rate of approximately 50,000 gallons-per-day.</p> <p>In August 1995, staff completed a study to find an effective solution and it was determined that the installation of commercial inner joint seals is the most cost-effective alternative. Inner joint seals, which have been used successfully in eliminating leaking problems in other Metropolitan pipelines, consist of an extruded rubber seal held in-place by stainless steel bands.</p> <p>Repairs to the Lakeview Siphon First Barrel will require the CRA, which is the source of water to Lake Mathews and Lake Skinner, to be taken out of service. Extended shutdowns of the CRA could affect Metropolitan's ability to deliver water to member agencies. To minimize the shutdown of the CRA, it is recommended that a contractor be selected that has the available resources and proven</p>
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






experience in installing inner joint seals to accomplish this work. Miller Pipeline Company is one of only two sources of inner joint seals and the only company that installs its product. The Miller Pipeline Company has extensive experience in installing large quantities of inner joint seals and has crews available on an urgent need-basis to complete the required work within the shutdown periods. Staff was unable to locate another company that has the proven ability and experience to install large quantities of inner joint seals on projects requiring limited shutdowns. Because of the unique nature of the work, this contract would be exempt from the competitive bid process under Administrative Code Section 8103(e). It is proposed that the General Manager be authorized to negotiate and execute a contract with Miller Pipeline Company for the installation of inner joint seals in the Lakeview Siphon First Barrel.

It is proposed that Metropolitan prepare specifications and negotiate and execute a contract with Miller Pipeline Company to install 120 inner joint seals in the Lakeview Siphon First Barrel. The total estimated cost of the project is \$858,000. A breakdown of the estimated costs is contained in the Financial Statement on Attachment A.

Class: 1 - Project directly related to delivery of water.

Benefit:

The proposed project would eliminate excessive water loss and its threat to adjoining properties.

PROJECT PLAN:						
PHASE	COST	% COMPLETE	COST THRU 9/95	1995	1996	1997
STUDY	\$ 30,000	100%	\$30,000			
FINAL DESIGN	\$ 19,800	0%	\$			
CONSTRUCTION	\$697,000	0%	\$			
ACCEPTANCE TESTING	\$	%	\$			
CONTINGENCY	\$111,200		\$			
TOTAL	\$858,000	3%	\$30,000			

ALTERNATIVES TO PROPOSED ACTION:

The following alternatives to the proposed project were evaluated and determined not to be as cost-effective or acceptable:

- Replacement of Pipeline - Construction costs for a new pipeline, not including environmental studies, engineering design, and purchase of additional right-of-way, are estimated at approximately \$19 million.
- Install Steel Bands - Steel bands cost approximately 20 percent more and would require twice as many shutdowns as inner joint seals.
- Grouting - Grouting is not a long-term option. Staff identified leaking at previously grouted locations during the February inspection of the pipeline.
- No Repair - Failing to perform repairs would allow continual water loss and result in adversely affecting adjoining properties. This alternative is strongly not recommended.

CEQA Compliance / Environmental Documentation:

The proposed project is exempt from the provisions of the California Environmental Quality Act as it consists of modifications of existing facilities, involving no expansion of use beyond that previously existing.

MBE/WBE:

Metropolitan's policy of encouraging participation of minority-owned and women-owned business enterprises has been determined not applicable to this project due to the lack of subcontractor participation opportunities.

<u>FINANCIAL ANALYSIS:</u>					
A. PROJECTED COSTS (CAPITAL AND O&M):					
	THROUGH FY 95-96	FY 96-97	FY 97-98	OUT YEARS	TOTAL
LABOR/ADDITIVES	\$ 81,000	\$ 20,000	\$0	\$0	\$101,000
PROFESSIONAL SERVICES	0	0	0	0	0
OTHER	430,800	215,000	0	0	645,800
CONTINGENCY	74,200	37,000			111,200
TOTAL	\$586,000	\$272,000	\$0	\$0	\$858,000
B. PROJECTED SAVINGS:					
	THROUGH FY 95-96	FY 96-97	FY 97-98	OUT YEARS	TOTAL
LABOR/ADDITIVES	\$0	\$0	\$0	\$0	\$0
PROFESSIONAL SERVICES	0	0	0	0	0
OTHER	0	0	0	0	0
TOTAL	\$0	\$0	\$0	\$0	\$0
C. DIFFERENCE (B-A)	\$(586,000)	\$(272,000)	\$0	\$0	\$(858,000)
D. CUMULATIVE DIFFERENCE	\$(586,000)	\$(858,000)	\$0	\$0	\$(858,000)

FINANCIAL STATEMENT

The total estimated cost breakdown is as follows:

	<u>Cost Estimate</u>
Labor:	
Engineering	\$ 41,000
Contract Administration/Field Inspection Operation (3 shutdowns)	15,000
	<u>45,000</u>
Total Labor	\$ 101,000
Equipment Use/Rental	15,000
Administrative Overhead	80,800
Contract (Miller Pipeline Company)	550,000
Contingency	<u>111,200</u>
TOTAL	\$ <u>858,000</u>
Projected Expenditure of Funds:	
Through Fiscal Year 1995/96	\$ 586,000
Fiscal Year 1996/97	<u>272,000</u>
TOTAL	\$ <u>858,000</u>

Source of Funds: Pay-As-You-Go Fund

Capital Program: Program was not included in the FY 1995/96 Capital Budget due to Program requirements for eliminating the excessive leaking in the CRA Lakeview Siphon First Barrel not being fully established.

Class: One--Program directly related to delivery of water.

Project Benefit: The proposed project would eliminate excessive water loss and its threat to adjoining properties.