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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

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

41175

DEC 13 1994

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Harold E. Duff
EXECUTIVE SECRETARY

November 29, 1994

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

From: General Manager

Subject: Revision No. 2 to Appropriation No. 608 to Increase Funding from \$1,400,000 to \$3,725,000 to Finance All Estimated Costs for Design, Procurement of Materials, and Installation of Backflow Prevention Devices at all Filtration Plants, the La Verne Facility, and the Relocation of Vacuum and Air Release Valves to Above Ground locations on the Orange County, and Middle Feeders, and the San Diego Pipeline No. 4.

RECOMMENDATION:

That the General Manager be authorized to have all work performed other than contracts in an amount of \$250,000 or more, for design, purchase of materials, and construction to relocate vacuum and air release valves to above-ground locations on the Orange County, and Middle Feeders, and the San Diego Pipeline No. 4.

Authorize Revision No. 2 to increase Appropriation No. 608 by \$2,325,000 from the Pay-As-You-Go Fund to finance all estimated costs for design, purchase of materials, and construction on the Orange County, and Middle Feeders, and the San Diego Pipeline No. 4.

APPROVAL OF REQUEST

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: FILTRATION PLANTS, DISTRIBUTION SYSTEM, AND COLORADO RIVER AQUEDUCT-BACKFLOW PREVENTION ASSEMBLIES

APPROPRIATION No.: 608	FUNDING REQUEST No.: REV. No. 2	AMOUNT: \$3,725,000
SOURCE OF FUNDS:	PAY-AS-YOU-GO	
BUDGET: No <input type="checkbox"/> YES <input checked="" type="checkbox"/>	@ \$1,230,000	CAPITAL PROGRAM
		PAGE NO. REFERENCE: 59

PROJECT JUSTIFICATION AND TYPE: (CHECK ALL APPLICABLE)

- | | | |
|---|---|---|
| <input type="checkbox"/> MEET WATER DEMANDS | <input type="checkbox"/> NEW FACILITY | <input checked="" type="checkbox"/> REPLACEMENT |
| <input checked="" type="checkbox"/> MANDATED BY LAW - CALIFORNIA DEPT. OF HEALTH SERVICES | <input checked="" type="checkbox"/> IMPROVEMENT | <input type="checkbox"/> EXPANSION |
| <input type="checkbox"/> ASSET PROTECTION/RISK MGT. | | |
| <input type="checkbox"/> COST AVOIDANCE | | |
| <input type="checkbox"/> OTHER | | |

PROJECT DESCRIPTION (INCLUDE CLASSIFICATION AND PURPOSE):

A cross connection is an unprotected connection between a potable water line and any source or other system containing unapproved water or substances that are not classified as safe, wholesome, and potable. A cross connection that is not controlled by backflow prevention measures poses a potential health hazard to those receiving water from the potable water system.

In August, 1993 Your Board approved Revision No. 1 to Appropriation No. 608 in the amount of \$1,400,000 to finance all estimated costs for design, procurement of materials, and installation of backflow prevention devices by District personnel at Weymouth Plant and the La Verne Facilities, and cross connection surveys at other sites. This phase of the work is essentially complete.

Cross connection surveys have now been completed on Metropolitan's Orange County, and Middle Feeders, and San Diego Pipeline No. 4, and it is now proposed to proceed with design, negotiations with local agencies, obtaining construction related permits, and actual relocations of 46 below-ground vacuum and air release valves to above-ground locations, by both District Forces and outside contractors.

Class: One--Programs directly related to delivery of water which, if delayed, will adversely impact reliability of service or water quality. This would also include programs not necessarily related to delivery of water but which are required for health and safety or governmental requirements.

STRATEGIC PLAN PRINCIPLE: 4.0 - Facilities**BENEFIT (NARRATIVE FOR DIRECT AND OTHER BENEFITS):**

The installation of backflow prevention systems are required to comply with current and future regulations. A system that is not controlled by a backflow prevention assembly poses a potential health hazard to those receiving water from the water system.

Staff has analyzed our distribution system to identify the vacuum and air release valves (VARVs) that are most vulnerable to cross-connection because of low pressure at these locations, prior history of flooding of the structures, or proximity to sewer lines. As a first phase, staff is requesting funding to upgrade 46 VARVs of the estimated 250 structures on our treated water system that need to be moved above-grade. Following completion of the first 46 VARVs, staff will return to the Board for additional funding to complete the remaining structures.

PROJECT PLAN:

PHASE	COST	1993	1994	1995	1996	1997
PRE. DESIGN	\$266,000	19.1% COMPLETE;	\$50,800 SPENT			
FINAL DESIGN	\$565,000	0 % COMPLETE;	\$0 SPENT			
CONSTRUCTION	\$744,000	0 % COMPLETE;	\$0 SPENT			
ACCEPTANCE TESTING	\$214,000	0 % COMPLETE;	\$0 SPENT			
TOTAL	\$1,789,000	2.8% COMPLETE;	\$50,800 SPENT			

*Note: Contingencies of \$536,000 not included

ALTERNATIVES TO PROPOSED ACTION:

The alternative to this proposed project is to maintain the present configuration and to be out of compliance with current and future regulations. A system that is not protected from potential cross-connections poses a potential health hazard to those receiving water from the water system.

POLICY CONSIDERATIONS:

Relocate vacuum and air release valves of below-ground to above-ground locations. No policy issues.

CEQA COMPLIANCE / ENVIRONMENTAL DOCUMENTATION

The proposed action is exempt from the provisions of the California Environmental Quality Act (CEQA) in that it consists of the minor alteration of existing public facilities involving negligible or no expansion of use beyond that previously existing (CEQA State Guidelines Section 15301, Class 1).

FINANCIAL ANALYSIS (NEW PROJECTS ONLY)

EVALUATION PERIOD: 4 YEARS

A. PROJECTED COSTS (CAPITAL AND O&M):

	YEAR 1	YEAR 2	YEAR 3	OUT YEARS	TOTAL
LABOR/ADDITIVES	\$ 32,000	\$100,000	\$287,000	\$302,000	\$ 721,000
PROFESSIONAL SERVICES	0	0	0	0	0
OTHER	19,000	115,000	380,000	554,000	1,068,000
TOTAL	\$51,000	\$215,000	\$667,000	\$856,000	\$1,789,000

NOTE: CONTINGENCIES OF \$536,000 NOT INCLUDED

B. Projected Savings:

	Year 1	Year 2	Year 3	Out Years	TOTAL
labor/additives					
professional services					
other					
Total					

C. Difference (B-A)	(51,000)	(215,000)	(667,000)	(856,000)	(1,789,000)
D. Cumulative Difference	(51,000)	(266,000)	(933,000)	(1,789,000)	(1,789,000)

Payback Period: years

Estimated Life of Project: 5 years

Assumptions:

Project is to comply with regulations of the California Department of Health Services.

Attachment

FINANCIAL STATEMENT

(Program No. 5-6080-32)

The total estimated cost breakdown for Revision No. 1 and Revision No. 2 is as follows. Revision No. 2 is for 46 vacuum and air release valves on the Orange County and Middle Feeders, and the San Diego Pipeline No. 4.

	<u>Revision No. 1</u>	<u>Revision No. 2</u>
Labor:		
Engineering	\$ 164,000	\$ 444,000
Water Quality	10,000	10,000
Environmental	4,000	4,000
Operations District Forces Installation	<u>210,000</u>	<u>653,000</u>
Total Labor	\$ 388,000	\$1,111,000
Materials and Supplies	\$ 625,000	\$ 755,000
Incidental Expenses	17,000	22,000
Right of Way & Land Purchases		301,000
Operating Equipment	5,000	22,000
Administrative Overhead	214,000	613,000
Contracts		214,000
Contingencies	<u>151,000</u>	<u>687,000</u>
Project Total	\$1,400,000	\$3,725,000
Projected Expenditure of Funds:		
Through Fiscal Year 1994/95		\$1,060,000
Fiscal Year 1995/96		877,000
Fiscal Year 1996/97		1,481,000
Fiscal Year 1997/98		<u>2,554,000</u>
Total		\$5,972,000
Estimated Funds Required:		
Initial		\$ 780,000
Revision No. 1		\$ 620,000
Revision No. 2		\$2,325,000
Additional		<u>\$2,247,000</u>
Total		\$5,972,000

Attachment

Source of Funds: Pay As You Go Fund

Capital Program for Fiscal Year 1994/95

Total Program Estimate	\$5,972,000
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Program Estimate for Fiscal Year 1994/95	\$1,230,000
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Class: 1

Programs directly related to the delivery of water which, if delayed, will adversely impact reliability of service or water quality. This would also include programs not necessarily related to delivery of water but which are required for health and safety or governmental requirements.

Project Benefit:

The relocation of air valves is required to comply with current regulations regarding the prevention of cross-connections in the distribution system. A system that is subject to cross-connections poses a potential health hazard to those receiving water from the system.

CHT:hk/ly
(bdap:apr-608.att/11094)

Attachment