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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Robert E. Duff
EXECUTIVE SECRETARY

June 22, 1994

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

From: General Manager

Subject: Revision No. 3 to Appropriation No. 544 to Increase Funding
from \$12,700,000 to \$12,950,000 to Finance All Additional Work
for Facilities to Interface the Washwater Reclamation Facility
Enlargement with the Weymouth Filtration Plant

Report

In March 1990, your Board authorized Revision No. 2 to Appropriation No. 544 to finance all estimated costs of construction of an enlargement of the washwater reclamation facility (WWRF) and facilities to interface the enlargement with the Weymouth filtration plant, and awarded a contract for construction of the WWRF enlargement to C. W. Roen Construction Company. Construction of the WWRF enlargement has been completed.

Metropolitan has identified additional unexpected costs for completing the WWRF which are higher than originally estimated. These costs are due to changing the chemical feed system from a diaphragm-pump-based to a gear-pump-based polymer chemical feed system, replacing the washwater return pumps and motors, and adding a sparging system.

When the original work for expanding the chemical feed system for the washwater reclamation plant was approved, it included a chemical feed system known to require a high level of maintenance. At the same time, a test program for a gear-pump-based polymer chemical feed system was underway, but test results were too incomplete to justify its substitution. Subsequently, the test program was completed which confirmed the expected reduction in maintenance costs and an increase in the system's operational flexibility to the extent of justifying its replacement at this time.

Additionally, the washwater return pumps in the sumps of Filter Buildings Nos. 1 and 2 have experienced maintenance and cavitation problems. The existing filters at Weymouth plant use anthracite coal as a filter media. During the backwash cycle, the shallow depth of filters allows coal grit

to overflow to the sumps of the washwater return pumps. A sparging system was proposed, designed, and successfully implemented to reduce the amount of coal entering the pump sumps. It is also proposed to replace the washwater return pumps in Filter Buildings Nos. 1 and 2 with lower speed pumps to reduce cavitation damage. The slower speed motors will increase the useful life of the pumps and make them more economical to operate over their expected life. Discharge piping will be designed to make the new pumps interchangeable between Filter Buildings Nos. 1 and 2, thereby reducing the inventory of spare parts.

An increase in Appropriation No. 544 of \$250,000 is now required to fund these additional costs. Construction by contract including extra work authorized has been completed. The additional work will be performed by District personnel. The total estimated cost of construction of an enlargement of the washwater reclamation facility (WWRF) and facilities to interface the enlargement with the Weymouth filtration plant under Appropriation No. 544 is \$12,950,000. A breakdown of the estimated cost is shown on the attached Financial Statement.

This proposed action, as described herein, is exempt from the provisions of the California Environmental Quality Act in that it consists of modifications to existing facilities with negligible expansion of use beyond the existing maximum capacity.

Board Committee Assignments

This letter is referred for action to:

The Engineering and Operations Committee because of its jurisdiction over the initiation, scheduling, contracting, and performance of construction programs pursuant to Administrative Code Section 2431(b); and

The Finance and Insurance Committee because of its jurisdiction over appropriations pursuant to Administrative Code Section 2441(d).

Recommendations

ENGINEERING AND OPERATIONS COMMITTEE FOR ACTION.

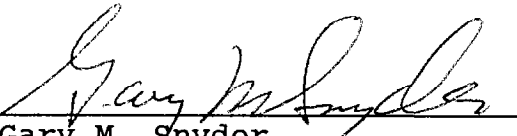
It is recommended that your Board authorize the General Manager to have all additional work performed for

facilities to interface the washwater reclamation facility enlargement with the Weymouth filtration plant.


FINANCE AND INSURANCE COMMITTEE FOR ACTION.

It is recommended that your Board authorize an increase of \$250,000 in Appropriation No. 544 from the 1992 Revenue Bond Construction Fund to a total of \$12,950,000 for additional costs of facilities to interface the washwater reclamation enlargement with the Weymouth filtration plant.

John R. Wodraska
General Manager

By 
Gary M. Snyder
Chief Engineer

Concur:


John R. Wodraska
General Manager

Attachment

FINANCIAL STATEMENT (Program No. 5-5440-31)

The breakdown of the total estimated cost for Revisions Nos. 2 and 3 for construction of enlargement of the washwater reclamation facility (WWRP) and facilities to interface the enlargement with the Weymouth filtration plant is shown below:

	<u>Revision No. 2</u>	<u>Revision No. 3</u>
Construction Specifications No. 1195 low bid received Feb. 14, 1990,	\$ 7,772,000	\$ 7,772,000
Extra Work under Specifications No. 1195	0	528,000
Labor:		
Engineering	395,000	485,000
Contract Administration, Inspection and Survey	195,000	200,000
District Forces Installation	<u>310,000</u>	<u>360,000</u>
Subtotal Labor	\$ 900,000	\$ 1,045,000
Materials and Supplies	965,000	1,000,000
Incidental Expenses	15,000	87,000
Professional/Technical Services	1,450,000	1,988,000
Operating Equipment	0	10,000
Administrative Overhead	434,000	491,000
Contingencies	<u>1,164,000</u>	<u>29,000</u>
Total	\$12,700,000	<u>\$12,950,000</u>

Estimated Funds Required:

Initial	\$ 1,500,000
Revision No. 1	1,400,000
Revision No. 2	9,800,000
Revision No. 3	<u>250,000</u>
Total	<u>\$12,950,000</u>

Source of Funds:

1992 Revenue Bond Construction Fund

Financial Statement (Cont.)

Class:

One--Projects directly related to delivery of water which, if delayed, will adversely impact reliability of service.

Projected Expenditures of Funds:

Through Fiscal Year 1993/94	\$12,700,000
Fiscal Year 1994/95	<u>250,000</u>
Total	\$12,950,000

Project Benefit:

Will provide increased reliability of the Weymouth WWRF while reducing maintenance costs.

Capital Program for Fiscal Year 1994/95:

Program funds were not included in Fiscal Year 1994/95 because the work was scheduled for completion prior to June 30, 1994. However, funds are available for this project.

Estimated Additional Annual O&M Funds Required	\$ 205,000
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