



MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

8-6

March 26, 1993

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

From: General Manager

Subject: Appropriation No. 641 for \$2,110,000 to Finance All Estimated
Costs for Installation of Screens at the Inlet to Lake Skinner
Bypass Pipeline No. 2

Report

To meet the disinfection requirements of the Surface Water Treatment Rule (SWTR), the direct filtration modules at Robert A. Skinner Filtration Plant No. 2 will need to be supplied by Bypass Pipeline No. 2, beginning in June 1993, and continuing until ozonation comes on-line. The SWTR requires a minimum level of disinfection for inactivation of Giardia and viruses which dictates greater contact time for disinfection in the direct filtration modules. To accomplish this, Skinner Plant No. 2 must operate its direct filtration modules off Bypass Pipeline No. 2, while chlorinating at the beginning of the bypass pipeline. Screens are required at the entrance to the pipeline to remove algae, weeds, and other debris which would interfere with the performance of the direct filtration modules.

During 1992, District personnel field-tested various types of screens with underwater and airborne jets used for screen cleaning to determine the best overall screen. It was concluded that the optimum screen is a dual-flow traveling water screen. This determination was based on the geometry constraints imposed by the existing concrete structures that support the screens at the inlet to Lake Skinner Bypass Pipeline No. 2, the high-flow capacities allowed by a dual-flow traveling water screen, and the high-level and ease of debris and algae removal from the screens.

It is proposed to design, purchase, and install dual-flow traveling water screens at the inlet to Lake Skinner Bypass Pipeline No. 2. It is also proposed to modify or replace existing bar screens upstream from the proposed dual-flow screens to remove larger debris. The total estimated project cost is \$2,110,000. A breakdown of the estimated cost is attached.

This proposed project is exempt from the provisions of the California Environmental Quality Act as it entails minor alterations of an existing facility and would involve negligible or no expansion of use beyond that previously existing.

Board Committee Assignments

This letter is referred for action to:

The Engineering and Operations Committee for consideration 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 for consideration because of its responsibility to study, advise, and make recommendations with regard to authorization of 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 work performed, other than work to be performed under competitively bid contracts involving an expenditure of \$250,000 or more, for design, purchase, and installation of dual-flow traveling water screens at the inlet to Lake Skinner Bypass Pipeline No. 2; and to modify or replace existing bar screens to reduce debris and algae that would interfere with filter operations at the Skinner filtration plant.

FINANCE AND INSURANCE COMMITTEE FOR ACTION.

It is recommended that your Board authorize Appropriation No. 641 in the amount of \$2,110,000 from the 1991 Revenue Bond Construction Fund to finance the estimated cost of design, purchase, and installation of dual-flow traveling water screens at the inlet to Lake Skinner Bypass Pipeline No. 2; and to modify or replace existing bar screens to reduce algae and debris that would interfere with filter operations at the Skinner filtration plant.


for Carl Boronkay

FISCAL STATEMENT

A breakdown of the estimated cost for design, purchase and installation of dual-flow traveling water screens at the inlet to Lake Skinner Bypass Pipeline No. 2, and to modify or replace existing bar screens is as follows:

Labor:

Engineering	\$ 280,000
Water Quality	20,000
Field Installation	<u>225,000</u>
Total Labor	\$ 525,000
Incidental Expenses	2,000
Materials and Supplies	990,000
Operating Equipment	
Use & Rental	20,000
Administrative Overhead	300,000
Contingencies	<u>273,000</u>
Project Total	<u>\$ 2,110,000</u>

Source of Funds:

1991 Revenue Bond Construction Fund

Projected Expenditure of Funds:

Through Fiscal Year 1992/93	\$ 150,800
Fiscal Year 1993/94	1,271,100
Fiscal Year 1994/95	<u>688,100</u>
Total	<u>\$ 2,110,000</u>

Class: One--Project directly related to the delivery of water

Project Benefit: Will allow for more effective filtration and disinfection contact time to meet SWTR requirements during bypass operations of Lake Skinner.