

- **Board of Directors**
Engineering and Operations Committee

February 12, 2002 Board Meeting

8-4

Subject

Authorize \$760,000 for final design and all activities in advance of an award of a construction contract for a Capital Investment Plan project within the Henry J. Mills Filtration Plant Improvements Program (Approp. 15381)

Description

The Mills filtration plant consists of four treatment modules. Modules 1 and 2 were placed into service in 1978 and 1989, respectively. Subsequently, Modules 3 and 4 were put into service in 1996. Several processes at the plant need to be upgraded to increase the operational reliability and flexibility. This determination was based on results of regular monitoring and maintenance of equipment and process performance.

At this time, it is necessary to rehabilitate Module 2 and upgrade a number of chemical feed systems throughout the plant. A number of systems of Module 2 require rehabilitation or replacement. Chemical control valve actuators need to be replaced and the polymer feed system needs to be expanded. The activities required for this upgrade involve both design and construction work. Collectively, these improvements will increase reliability and flexibility at the plant.

The recommended board action will fund design of the required improvements and authorize Metropolitan forces to make minor equipment replacements and upgrades. Staff will return to the Board later for additional funding and approval to award a construction contract to complete the improvements. The work included in this board action has been evaluated and recommended by the Capital Investment Plan (CIP) Evaluation Team and is included in the Capital Budget for fiscal year 2001/2002. See [Attachment 1](#) for the Detailed Report, [Attachment 2](#) for Project Location and [Attachment 3](#) for the Financial Statement.

Policy

Metropolitan Water District Administrative Code § 5108: Capital Project Appropriation

California Environmental Quality Act (CEQA)

CEQA determination for Staff Recommendation:

The proposed actions are categorically exempt under the provisions of CEQA. The proposed actions involve the funding, final design, and construction of the Mills Module 2 Rehabilitation and Chemical Feed Systems Upgrade projects (Approp. 15381). These actions will involve modifications and repairs to the existing water system at the Mills plant with no expansion of use and no possibility of significantly impacting the physical environment. As such, the proposed actions qualify under a Class 1 Categorical Exemption (Section 15301 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed actions qualify under a Categorical Exemption (Class 1, Section 15301 of the State CEQA Guidelines).

Staff Recommendation

Adopt the CEQA determination and

- a. Appropriate \$760,000.
- b. Authorize the Chief Executive Officer to perform all activities in advance of an award of a construction contract to support the process upgrades at the Mills plant.

Fiscal Impact: \$760,000 of budgeted CIP funds under Approp. 15381.



Roy L. Wolfe
Manager, Corporate Resources

1/14/2002
Date



Ronald R. Gastelum
Chief Executive Officer

1/20/2002
Date

Attachment 1 – Detailed Report

Attachment 2 – Project Location

Attachment 3 – Financial Statement

BLA #1267

Detailed Report

Purpose/Background

The Mills plant was originally placed in service in 1978 and has been expanded twice since that time. The most recent expansion was completed in 1996. The plant consists of four treatment modules and is currently permitted to treat up to 220 million gallons per day. Due to age and years of service, several processes need to be upgraded or replaced to ensure operational reliability and flexibility. The recommended work is as follows:

- Module 2 needs to be rehabilitated. This work includes installing new flocculators; checking and servicing all valves, pumps, motors and instruments; modifying the travelling bridges and sample pumps; installing new online chlorine analyzers; installing a new sludge collection pipeline and developing new control system screens and programs.
- The Mills plant utilizes six reclamation basins as its only treatment for reclaimed washwater. To improve the settling characteristics of the washwater sent to these basins, it is recommended that a polymer feed system be installed on the reclamation basin influent pipeline.
- The chemical feed systems at the plant, including those at Module 2, need to be upgraded to yield more reliable and accurate control. Additionally, sodium hypochlorite feed systems should be installed in Module 2. The existing chemical control valve actuators have been difficult to control and also are no longer manufactured or supported by the original supplier. New actuators should be installed on the chemical control valves. The sodium hypochlorite system for Modules 3 and 4 (currently under design) will be expanded to meet the needs of Module 2 once this module is rehabilitated.

Metropolitan forces will perform work during the preliminary and final design phases to investigate the status and prepare Module 2 for the subsequent contractor activities. The contractor will be responsible for the major Module 2 rehabilitation work including the new flocculators, modifying the travelling bridges and sample pumps, installing new equipment and lines and installing a new sludge line from Module 2 to the reclamation basins.

The requested funds of \$760,000 were budgeted in the fiscal year 2001/2002 Capital Budget and are part of original program estimate.

Actions and Milestones

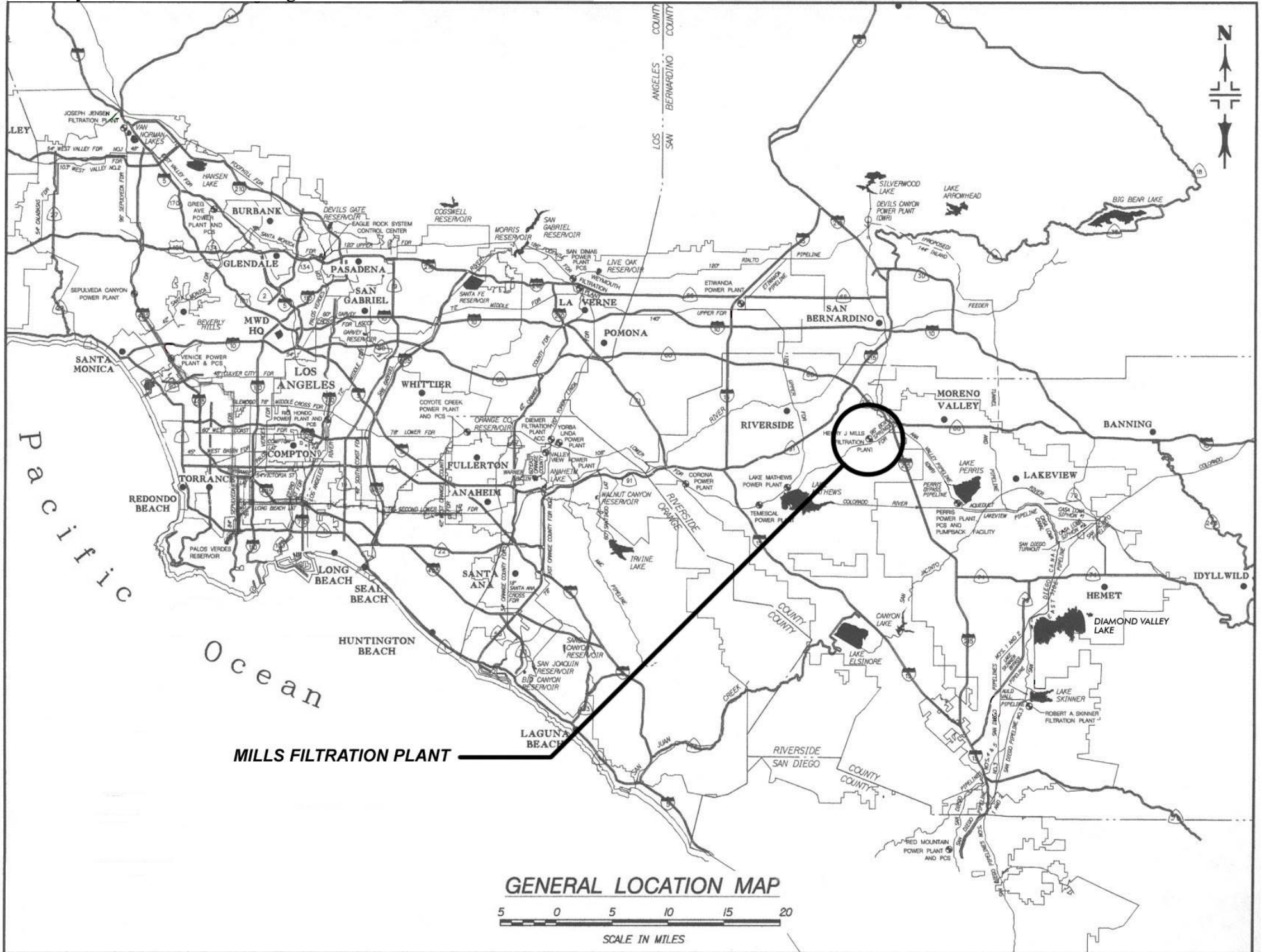
February 2002 – Initial authorization and Board funding

January 2003 – Return to Board for funds and award of construction contract

November 2003 – Complete construction contract

Cost Estimate

Attachment 3 shows the breakdown of the total estimated costs of \$760,000.



Financial Statement for Mills Plant – Improvements Program

A breakdown of Board Action No. 2 for Appropriation No. 15381 to finance preliminary and final design, advertisement of the contract specifications and Metropolitan force repairs to support the process upgrades is as follows:

	Board Action No. 1 (Nov. 2001)	Board Action No. 2 (Feb. 2002)
Labor		
Studies and Investigations	\$ 100,000	\$ 100,000
Design and Specifications	16,000	475,000
Owner Costs (Program Management, Environmental Docs., Control System Integration, Bidding Process)	5,000	120,000
Water System Operations (Metropolitan Force Installation and Construction, Water Quality)	25,000	85,000
Materials and Supplies	55,000	75,000
Incidental Expenses	5,000	7,000
Equipment Use	4,000	8,000
Remaining Budget	30,000	130,000
Total	\$ 240,000	\$ 1,000,000

Funding Request

Program Name:	Mills Filtration Plant – Improvements Program		
Source of Funds:	Construction Funds (possibly General Obligation, Revenue Bonds, Pay-As-You-Go Fund)		
Appropriation No.:	15381	Board Action No.:	2
Requested Amount:	\$ 760,000	Capital Program No.:	15381-I
Total Appropriated Amount:	\$ 1,000,000	Capital Program Page No.:	E-35
Total Program Estimate:	\$ 2,840,000	Program Goal:	Infrastructure Reliability