

March 23, 1999

To: Board of Directors (Executive Committee--Action)

From: General Manager _____

Submitted by: Gary M. Snyder
Chief Engineer _____

Subject: Appropriate \$575,000 and Delegate Authority to Procure Equipment for the Joseph Jensen Filtration Plant Washwater Reclamation Plant No. 1 Vertical Pumps Replacement Project

Reference: Appropriation No. 15333

RECOMMENDATION(S)

To replace the four vertical turbine pumping units at the Joseph Jensen (Jensen) Filtration Washwater Reclamation Plant (WWRP) No. 1, it is recommended that the Board:

1. Appropriate \$575,000 in budgeted funds to finance all associated costs;
2. Authorize the General Manager to have all work performed;
3. Delegate to the General Manager the authority to award a procurement contract for equipment, not to exceed \$400,000; and
4. Determine that the project qualifies for Categorical Exemption under the California Environmental Quality Act.

EXECUTIVE SUMMARY

The vertical turbine pumping units at Jensen WWRP No. 1 were initially placed into service in 1971. Although the equipment has been routinely maintained during its service life, the equipment has significantly deteriorated during 28 years of operation. This deterioration has resulted in reduced reliability and increased maintenance costs for these pumps and their related process. Approval of these recommendations will authorize the General Manager to have all work performed to replace these units. The total estimated cost of the program is \$575,000.

JUSTIFICATION

Replacement of these pumping units will reduce maintenance costs and enhance plant operational reliability and flexibility.

ALTERNATIVE TO PROPOSED ACTION

Continue Operating with Existing Pumps

This alternative would reduce short-term capital expenditures, but would lead to increased operating and maintenance costs and jeopardize the plant's reliability and operational flexibility.

FUNDING REQUEST

Program Name: Joseph Jensen Filtration Plant - Replace Vertical Pumps for WWRP #1			
Source of Funds: Pay-As-You-Go Fund			
Appropriation No.: 15333	Board Action No.1		Budget: \$615,000
Requested Amount:	\$575,000	Capital Program No.:	98908-A
Total Appropriated Amount:	\$575,000	Capital Program Page No.:	E-51
Total Program Estimate:	\$575,000*	Program Category:	Asset & System Integrity

*This estimate is \$40,000 less than the \$615,000 that was included in the Capital Program for Fiscal Year 1998/99 because the costs of the equipment were refined during preliminary design.

ACTIONS AND MILESTONES

- August 1999 - Complete final design/procurement
- October 1999 - Award procurement contract
- April 2000 - Complete construction

CEQA COMPLIANCE / ENVIRONMENTAL DOCUMENTATION

The proposed project qualifies for Class 1 Categorical Exemption under the California Environmental Quality Act (CEQA), because it consists of the replacement, repair, or minor alteration of an existing public facility involving no expansion of use beyond that previously existing (State CEQA Guidelines, Sections 15301 and 15302). No other environmental documentation is required for this project.

DETAILED REPORT

Jensen WWRP No. 1 is designed to treat and reclaim up to 11 mgd of used filter backwash water using several treatment processes, which include chemical addition, flocculation, and sedimentation. After processing in the WWRP, the reclaimed water is pumped back to the influent conduit where it is blended with the raw water flow entering the plant.

The four vertical turbine pumping units lift the used filter backwash water into WWRP for processing. The pumps were placed into service in 1971. After years of pumping water which contains abrasive sand and coal filter media, the pump casings and support columns are badly pitted and eroded. Shaft sections have become worn from years of use and repeated disassembly/reassembly during overhauls. Shaft sections are no longer perfectly straight, causing increased vibration, which in turn accelerates wear. Due to these severe operating conditions, each pump has been repaired and rebuilt on five or more separate occasions during its service life. In their present condition, these pumps are expected to continue to break down at more frequent intervals until they are replaced.

This project will replace each pump, add higher efficiency motors, and upgrade the pumping controls. The proposed work will be accomplished by Metropolitan forces.

The total estimated cost of the program is \$575,000. A breakdown of estimated costs is shown on the attached Financial Statement (Attachment A).

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Attachment 8-2A

Attachment 8-2B

Attachment 8-2A

FINANCIAL STATEMENT

(Capital Program No. 98908-A)

The breakdown of the total estimated cost for the Joseph Jensen Filtration Plant WWRP No. 1 Vertical Pumps Replacement is as follows:

	BOARD ACTION NO. 1
Labor:	
Study/Investigation	\$ 7,500
Final Design/Procurement	12,000
District Forces Construction	21,000
Project Management	<u>7,000</u>
Subtotal Labor	\$ 47,500
Material and Supplies	400,000
Incidental Expenses	7,500
Operating Equipment	20,000
Contingencies	<u>73,700</u>
Subtotal Direct	\$ 548,700
Administrative Overhead	26,300
Total	<u>\$575,000</u>
Source of Funds: Pay-As-You-Go Fund	
Projected Expenditures of Funds :	
Through	
Fiscal Year 1998/99	15,000
Fiscal Year 1999/00	486,300
Contingencies	<u>73,700</u>
Total	\$575,000
Capital Program for Fiscal Year 1998/99	
Total Budget	\$ 615,000
Program Estimate for FY 1998/99	\$ 538,700

Attachment 8-2B

Jensen WWRP No. 1 Vertical Pumps Replacement

