



**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

8-7

August 25, 1998

**To:** Board of Directors (Engineering and Operations Committee--Action)  
**From:** *for* General Manager Edward S. Meas III  
**Submitted by:** Chief Engineer Gary M. Snyder  
**Subject:** Authorize Construction Extra Work Orders for the P-1 Pumping Plant of the Eastside Reservoir Project

**RECOMMENDATION(S)**

It is recommended that the Board authorize the General Manager to expend an additional \$4,300,000 of previously appropriated funds and to execute Extra Work Orders to the contractor constructing the P-1 Pumping Plant, not to exceed a cumulative total of \$9,800,000 (15.8 percent of the original contract amount), in form approved by the General Counsel.

**EXECUTIVE SUMMARY**

The Eastside Reservoir Project (ESRP) P-1 Pumping Plant will supply up to 2100 cfs of water to the reservoir from the San Diego Canal and Eastside Pipeline. The Pumping Plant will include a Pressure-Control Structure that will release up to 1,700 cfs from the Eastside Reservoir to the San Diego Canal to meet customer demands. Piping facilities at the pumping plant will also divert releases via the Eastside Pipeline to the western portions of the service area. In November 1996, the Board authorized Appropriation No. 15123/ Authorization No. 36 in the amount of \$74,700,000 to fund all costs related to Contract No. 1477 to construct the P-1 Pumping Plant for the ESRP. The Board has previously granted increased change authority not to exceed \$5,500,000, or 8.84 percent of the original contract amount. There have been significant modifications to contract work to accommodate necessary design changes related to Metropolitan Furnished Equipment (MFE) submittals, modifications required by the State of California Division of Safety of Dams (DSOD), and other design interface needs of the project. These changes, which to a large extent have been anticipated and budgeted, will exceed the previously increased expenditure authorization, thereby requiring notification of and additional authorization by your Board.

## **JUSTIFICATION**

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The P-1 Pumping Plant is the only means to deliver both State Water Project and Colorado River Aqueduct water from the San Diego Canal into the Eastside Reservoir. The plant provides an essential function to the reservoir project, without which its overall operation would be impaired.

## **ALTERNATIVE TO PROPOSED ACTION**

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- 1) Do not authorize the General Manager to award extra work orders.

Continuing with the construction of the P-1 Pumping Plant without the increased authorization would preclude Metropolitan's ability to address remaining issues and negotiate cost-effective remedies. The amount of Extra Work Orders approved to date has remained within the Board's increased authorization limits; however, Metropolitan's construction management team estimates that without increased authority, the remaining funds will be insufficient to complete the facility. To withhold payment for this necessary work until after completion of construction would be more costly than resolving these cost issues as they occur. This could also result in significant time delays to the P-1 Pumping Plant operations and the filling of the reservoir.

## **ACTIONS AND MILESTONES**

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- Completed Final Design of the P-1 Pumping Plant: July 1996
- Started Construction of the P-1 Pumping Plant: February 1997
- Complete Construction of the P-1 Pumping Plant: September 1999

## **CEQA COMPLIANCE / ENVIRONMENTAL DOCUMENTATION**

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All California Environmental Quality Act (CEQA) requirements have been satisfied for the proposed action. In October 1991, the Board certified the Final Environmental Impact Report for the ESRP. This action satisfied the provisions of CEQA, and no further environmental documentation or reviews are necessary for the Board to take action on these recommendations.

## **DETAILED REPORT**

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The contract work for the P-1 Pumping Plant under Contract No. 1477, Specifications No. 1342, as amended, included: reinforced concrete construction of the Pump House, Control Center, and Pressure Control Structure; and installation of large-diameter steel pipe, valves, 6,000 HP pump/motor units, and LCI control units. These major equipment components of the P-1 Pumping Plant were of a complex nature requiring a long lead time for manufacturing. Consequently, Metropolitan purchased the equipment under separate contracts and provided it as Metropolitan-Furnished Equipment (MFE) to be installed by the General Contractor.

The P-1 Pumping Plant specifications and drawings were advertised for bid based upon the best available information of the site conditions, concurrent construction contract interfaces (i.e., West Dam, Inlet/Outlet Tower, and Eastside Pipeline), electric utility agreements, and preliminary design details of the MFE. The contract was advertised at this time to coincide with major interfaces of other project features, thereby maintaining total project schedule. Subsequent to award of the P-1 Pumping Plant contract, final details of the MFE became available as the equipment design and manufacturing stages were completed, these design details required changes to incorporate them into the contract. Metropolitan has issued the majority of the changes necessary to integrate the completed electrical, mechanical, and control systems details of the MFE and actual site conditions into the contract for the P-1 Pumping Plant. Additionally, The State of California Division of Safety of Dams (DSOD) has mandated supplemental pipe reinforcement and testing for the discharge portion of the P-1 Pumping Plant piping system which interfaces with the West Dam. To date, 15 Extra Work Orders have been issued for settlement of design revisions and the contractor's claims for additional compensation for extra work. Additional issues have been identified, resulting in extra costs which will exceed present authorization limits. These issues consist of increases in electrical conduit and equipment control wiring, structural steel modifications, and system installation interferences.

At the time of award of the construction contract for the P-1 Pumping Plant, the Board authorized an appropriation of \$74,700,000 for all costs related to Contract No. 1477. Section 8115(d) of the Metropolitan Water District Administrative Code requires the approval of the Board for funding of Extra Work Orders when the total cumulative amount expended on extra work exceeds the greater of five percent of the contract bid amount, or \$250,000. For the P-1 Pumping Plant contract, five percent of the original contract amount of \$62,200,000 is \$3,110,000. The Board has previously granted increased change authority not to exceed \$5,500,000, or 8.84 percent of the original contract amount. The total of Extra Work Orders issued to date is \$3,719,347. Other changes have been ordered for which quotations from the Contractor have been received, which will exceed the current \$5,500,000 authority by \$4,300,000 for a total Extra Work Order amount of \$9,800,000.

All known and reasonably foreseeable modifications necessary for completion and functional operation of the P-1 Pumping Plant have been addressed and are covered under this funding request.

This letter seeks the Board's authorization to increase the General Manager's authority to issue Extra Work Orders to the contractor in an aggregate amount not to exceed \$9,800,000, which is approximately 15.8 percent of the original contract amount.

DGM/GKB/LLT/amb/hjg

Attachment(s)  
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