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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

8-5

December 4, 1997

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

From: *for* General Manager

Submitted by: Chief Engineer

Subject: Authorize Construction Change Orders for P-1 Pumping Plant of the Eastside Reservoir Project

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RECOMMENDATION(S)

It is recommended that your Board authorize the General Manager to execute change orders to the contractor constructing the P-1 Pumping Plant to exceed five percent in contract value, in aggregate not to exceed \$5,500,000, in form approved by the General Counsel.

EXECUTIVE SUMMARY

The Eastside Reservoir Project (ESRP) P-1 Pumping Plant will supply up to 2100 cfs 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 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. There have been significant modifications to contract work, to accomodate necessary design changes related to Metropolitan Furnished Equipment (MFE) submittals, and other design interface needs of the project. These changes, which have been anticipated and budgeted, will exceed five percent in contract value and require notification of and additional authorization by your Board.

JUSTIFICATION

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.

ALTERNATIVE TO PROPOSED ACTION

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

Since this facility is essential to the ESRP, the only feasible alternative is to continue with the construction of the P-1 Pumping Plant. If the change orders are not issued at this time, the additional work will have to be done after construction is completed to ensure that all operational equipment is compatible. This would cause significant cost increases and time delays to the P-1 Pumping Plant and the filling of the reservoir.

ACTIONS AND MILESTONES

- 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: July 1999.

CEQA COMPLIANCE / ENVIRONMENTAL DOCUMENTATION

All California Environmental Quality Act (CEQA) requirements have been satisfied for the proposed action. In October 1991, your 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 your Board to take action on these recommendations.

DETAILED REPORT

The Contract work for the P-1 Pumping Plant under Contract No. 1477, Specifications No. 1342, as amended, included: structural concrete construction of the Pump House, Control Center, Pressure Control Structure; 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. 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.

Metropolitan issued 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. To date, nine extra work orders have been issued for settlement of design revisions and the contractor's claims for additional compensation for extra work.

Section 8115(d) of the Metropolitan Water District Administrative Code requires the approval of your 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 equals \$3,110,000. The total of extra work orders issued to date in order to mitigate the above-referenced equipment integration and design interfaces is \$2,256,185 or approximately 3.7 percent of the contract bid amount. Additionally, other revisions have been issued for which quotations from the Contractor amounting to \$843,391 have been received and are being evaluated. Settlement of these modifications will virtually exhaust the current expenditure authority as the cumulative value of cost for changes which have been formalized and those for which quotations have been received amounts to \$3,099,575.

Other revisions to the contract work have been issued or are in the process of being issued; consequently, it is anticipated that additional expenditures will be required to settle these known but yet unquantified changes.

This letter seeks your Board's authorization for the General Manager to exceed five percent in extra work orders on the contract and to issue extra work orders to the contractor in an aggregate amount not to exceed \$5,500,000. The increased authority will replenish the value of the currently authorized and anticipated expenditures and thereby provide a renewed change order authority well within construction contingency funds. Funds to cover the cost of the extra work are available under Authorization No. 36, which increased Appropriation No. 15213 by the amount of \$74,700,000.

DGM/hjg

Attachment(s)