

- **Board of Directors**  
**Engineering, Operations and Real Property Committee**

March 13, 2001 Board Meeting

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8-1

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**Subject**

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Authorize increasing the General Manager's authority to execute change orders by \$395,743 for the Cajalco Creek Dam and Detention Basin Project (Appn. 15253)

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**Description**

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The Lake Mathews Watershed Drainage Water Quality Management Plan will provide facilities to protect Lake Mathews by reducing the surface flow of contaminants from Cajalco Creek into the lake. The first phase of this plan is the Cajalco Creek Dam and Detention Basin Project, which is being constructed under Contract 1517. Change orders on Contract 1517 are currently expected to exceed five percent of the bid amount, mainly due to addressing the unexpected presence of uranium in the groundwater, and to the addition of a traffic signal on the new road requested by the Riverside County Transportation Department (County). Costs associated with the traffic signal will be reimbursed by the County. The General Manager's authority needs an increase above the five percent allowed under Metropolitan Water District Administrative Code Section 8115(d) in order to execute the change orders on the contract. The requested increase raises the change orders to 6.8 percent of the bid amount. No increase in the program estimate or appropriation is required. Partial financing for the project will be provided by a \$20 million low interest (2.8 percent) State Revolving Fund loan.

***Groundwater Dewatering***

In December 1999, the Board awarded a construction contract to Kiewit Pacific Company (KPC) in the amount of \$22,085,140 to perform the construction of the Cajalco Creek Dam and Detention Basin. This bid was approximately \$5.3 million lower than the next lowest bid.

Construction activities for the Cajalco Creek Dam and Detention Basin project began in January 2000, and dewatering of the dam foundation began in February 2000. Shortly after the start of dewatering, Metropolitan determined that the groundwater contained elevated levels of uranium, which appears to be naturally occurring. Accordingly, the groundwater was not released into Lake Mathews through Cajalco Creek.

Riverside County health officials and the Regional Water Quality Control Board, as well as Metropolitan, were previously unaware of the presence of the uranium in the area. Metropolitan staff, along with the design and geotechnical consultants and with input from KPC, developed several options for managing the groundwater and making design adjustments to enable construction to continue. During this time, KPC was able to continue construction activities by resequencing portions of the project unaffected by the groundwater. Dry weather during the year 2000 resulted in a significant subsidence of the groundwater as the project progressed, enabling KPC to restart the dam construction in late June 2000. As a result, Metropolitan was able to avoid expensive project options such as groundwater treatment and alternate dam designs. KPC accelerated the construction of the dam foundation to take advantage of the dry conditions, and completed the foundation work before the winter season began. The project is expected to be completed within its original schedule.

The groundwater dewatering issue impacted the contractor's work by causing resequencing of the work, longer haul distances for the excavated materials and embankment, localized dewatering of groundwater to allow some work to occur, impounding of groundwater within the construction site boundaries, and standby time while the excavation of the dam was not allowed to continue. Metropolitan has negotiated an \$875,000 settlement with KPC for the areas of work affected.

***Traffic Signal***

During the design phase of the project, Metropolitan and the County executed Agreement No. 16504 for the County to perform review of the Cajalco Road relocation design. Following the award of the construction contract, the County requested that Metropolitan add the installation of a new traffic signal to the project scope. In September 2000, the Board authorized an amendment to Agreement No. 16504 to provide inspection and survey services by the County during construction. The amendment included a provision that Metropolitan would direct KPC to furnish and install a traffic signal. The County would reimburse Metropolitan for the cost of the traffic signal (\$180,000) as a credit against the inspection fees. The value of the credit has been withheld from the inspection fees that normally would be advanced to the County.

Due to the impact of the groundwater (\$875,000), the added cost of the traffic signal (\$180,000), and other miscellaneous changes identified to date (\$248,000), the cost of change orders on the contract will exceed five percent of the contract value by \$198,743. In order to settle the impacts associated with the changes to date and to provide an allowance (approximately \$200,000) for possible future changes, it is recommended that the Board authorize increasing the General Manager's authority to execute change orders on Contract 1517. The increase requested is \$395,743 for a total change order limit of \$1.5 million, representing 6.8 percent of the contract value (\$22,085,140). The appropriation contains sufficient funds to cover the increases in the construction contract. No increase in the program estimate or appropriation is required.

The Environmental Impact Report (EIR) for the Drainage Water Quality Management Plan was prepared by the County of Riverside acting as Lead Agency pursuant to the California Environmental Quality Act (CEQA) and was certified by the Riverside County Board of Supervisors on December 21, 1992. In January 1993, Metropolitan, as a Responsible Agency for the purpose of approving the Plan under CEQA, considered the environmental impacts as shown in the EIR prior to approving the Plan. Metropolitan prepared an Addendum to the EIR in September 1998, as required by CEQA to address minor project design changes. No further CEQA documentation is required for the Board to act on the options.

(See [Attachment 1](#) for the site map.)

**Policy**

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Metropolitan Water District Administrative Code Section 8115(d) – Change Orders

**Board Options/Fiscal Impacts**

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**Option #1**

Authorize an increase in the General Manager's authority to execute change orders on contract 1517 by \$395,743 (from \$1,104,257 to \$1.5 million).

**Fiscal Impact:** Up to a maximum of \$395,743, depending on the amount of future changes, of budgeted Capital Investment Plan (CIP) funds under existing Appropriation 15253; while \$198,743 for change orders has been identified to date.

**Option #2**

Authorize an increase in the General Manager's authority to execute change orders on contract 1517 by \$198,743 (from \$1,104,257 to \$1.303 million). In this event, the General Manager would need to seek further Board approval for any additional changes through completion of the construction project.

**Fiscal Impact:** \$198,743 expenditure of budgeted CIP funds under existing Appropriation 15253, plus possible costs associated with delays, and administration costs associated with seeking further Board authorization, if additional changes are necessary.

**Staff Recommendation**

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Option #1

 Roy L. Wolfe Manager, Corporate Resources	<hr/> 2/28/2001 Date
 Ronald R. Jester General Manager	<hr/> 2/28/2001 Date

**Attachment 1 – Site Map**

BLA #734

