

● **Engineering and Operations
Committee**

October 11, 1999 Committee Meeting

E&O7b

Subject

Eastside Reservoir

I am enclosing **a copy** of Mr. Ron Krafka's most recent report on his oversight of the Eastside Reservoir expenditures. Mr. Krafka will be available at the next committee meeting of the Engineering and Operations Committee to answer any questions.

In the interim, please do not hesitate to call me or Joe Tait if you have any questions or would like more information.

General Manager

Date

Attachment 1

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Date: September 15, 1999
To: Ronald R. Gastelum, General Manager
From: Ronald L. Krafka, Independent Consultant
Subject: Independent Oversight Report #2 – August 11 through September 15, 1999
 Eastside Reservoir Project

Financial Status:

The financial information presented herein does not consider pending claims and the impact that the settlement of those claims might have on the total project cost, as that is outside the scope of this assignment.

- Total expenditure through July 1999, as reported in Oracle, is \$1,787.8 Million.
- The revised approved budget is \$2,087.1 Million. This is currently categorized as:

Completed Contracts (Including Land Cost to-date)	\$652.4
Work In Progress (Under Contract)	1,279.9
Uncommitted Funds*	154.8
Approved Budget	\$2,087.1

(All numbers are in millions)

*Includes approximately \$70.0 Million (not including contingency) in construction contracts which remain to be awarded as estimated by Engineering and delineated in the approved budget. These work elements are currently being evaluated by the Evaluation Team as described in the following section.

Budget:

The project is within the \$2,087.1 Million budget approved at the July 1999 meeting of the Board of Directors.

The Evaluation Team established by the Office of the General Manager, and chaired by the writer, continued to review each remaining work element to determine its requirement for a fully operational and permitted reservoir. If the element is required, the Team reviews options to determine the most cost effective method of accomplishing the need while serving the interests of all Metropolitan groups. The process is not complete at this time. It is the goal of the Team to complete its review and make

recommendations to the General Manager by September 30th. It appears that substantial savings or deferred costs will be realized as a result of this process.

Budget Status:

- Percent Expended: 85.66%
- Percent Complete: 89.19%

The above Percent Complete is based upon a weighted average of completion percentages as follows:

- Completed Projects at 100%
- As reported by Engineering for the 8 major active construction contracts
- Construction contracts remaining to be awarded at 0%

The above Percent Expended is the total expenditure reported-to-date in Oracle divided by the approved budget total of \$2,087.1 Million.

Schedule:

The December dedication ceremony has been postponed and a late January 2000 date is currently being proposed. Although the ceremony has been postponed from December 3rd, the project milestone dates, including the date for initiation of testing, have not been revised. The current plan is to begin filling the Forebay on October 5th at 8:00 am. Filling will occur during daylight hours only at a rate of 100 ac-ft/day until the Forebay is filled to 450 ac-ft. Testing of the pumps will commence shortly thereafter. Test flows through the P-1 Pressure Tunnel and the Inlet/Outlet Tower are scheduled for early November. Testing will result in water within the reservoir but the water level is not to exceed Elevation 1550 as mandated by the Division of Safety of Dams (DSOD). The remaining proposed work elements, other than construction of the dams and the reservoir, are scheduled to be completed in August 2001 and are currently subject to the foregoing evaluation process.

Issues of Concern:

Advanco Constructors, the contractor for the P-1 Pumping Plant has accelerated his activities, working 10 to 12 hour shifts, seven days per week. The Resident Engineer forecasts that the majority of the work covered under Milestone 4 will be completed by September 21st. It is anticipated that only minor items work won't be complete by September 21st and this work should not affect Start-Up Testing. The Resident Engineer remains optimistic that Milestone 5 will be met on September 29th. The critical path is still with Metropolitan's equipment testing; however, testing activities are being conducted around the clock.

The north half the East Dam is "topped out" and the south half of the dam is at approximate Elevation 1740 with 29 feet to go (the fill rises at a rate of approximately 1 foot/day). The south half is scheduled to be "topped out" in early December 1999. It is anticipated that the project will be completed within the project budget. This item is no longer an issue of concern.

The West Dam contractor, Atkinson-Washington-Zachry (AWZ), has been able to maintain their required deliveries and is currently delivering in excess of 30,000 tons per day of 6-inch (and smaller) rock to Kiewit-Granite (KG). Scheduled deliveries of rock for September and October are 400,000 and 455,000 tons, respectively, and these quotas should be easily met. Of the additional 2 million tons of 6-inch rock that KG has requested, AWZ has delivered on the order of 1,700,000 tons. KG has requested an additional 300,000 tons of 6-inch rock. The ESRP Construction Management Organization is evaluating KG's request for additional rock. AWZ has had to deepen the Borrow Area 2 excavation to supply the last 1 million tons of 6-inch rock and has encountered water within the excavation. AWZ maintains that they have incurred additional costs, in excess of the originally bid unit prices, for deepening the borrow pit. They have transmitted a letter requesting additional compensation in the amount of \$560,000, which could increase if KG's request for an additional 300,000 tons is granted. The ESRP Construction Management Organization continues to evaluate AWZ's request.

Activities:

The following activities were performed during the month:

Oversight Activities:

- Reviewed project expenditures as reported on Oracle financial reports
- Met with the Assistant Chief Financial Officer and Engineering staff to discuss reconciliation of Oracle reports and Engineering's Monthly Project Status reports
- Reviewed payment requests and funding commitments, \$50,000 or greater, submitted by Engineering and recommended action to Assistant General Manager, Joseph E. Tait
- Reviewed payment applications submitted by the major contractors and recommended approval to Assistant General Manager, Joseph E. Tait
- Monitored major contracts
- Monitored the project Summary Schedule
- Monitored major contractor performance based upon detailed analyses prepared by the project management staff
- Monitored project budget line items
- Reviewed outstanding obligations for major contracts that have been awarded, but not completed
- Conducted Evaluation Team meetings to determine the necessity, scope, and estimated cost for work elements that are to be awarded in the future
- Attended project meetings where contractor performance is reviewed and reported by the Resident Construction Engineers
- Reviewed project construction details and issues with the Eastside Reservoir project management staff
- Reviewed project financial reports and details with Engineering and Finance and Business Services staff
- Observed the construction site and construction activities

Evaluation Team Activities:

- On August 12th, the Team continued to evaluate the proposed Site Completion work element. The Team made comments that required further analysis by Engineering and requested that this element be presented for further review at a future meeting. The Team also continued to evaluate the Aesthetic Treatment of Disturbed Areas with a focus primarily on site trees, lakes and roads. The Team determined that trees were not required in the interior of the recreation areas as a mitigation measure. However, the Team determined that a field visit was required to evaluate the need for additional trees as additional mitigation along the perimeter of the recreation areas. Engineering reported that only 3 feet of lake freeboard was required to satisfy the forebay emergency discharge storage requirement. Therefore, it was determined that additional analysis of the lakes was required. Engineering was asked to study three lake options: 1) Leave the lakes dry. 2) Stabilize the edges and fill the lakes with water. 3) Backfill the lakes with soil to within 3 vertical feet of the lake edge. The Team also determined that site access roads did not require a paved or gravel surface for the operation of the reservoir.
- On August 19th, the Team continued the discussion of the Aesthetic Treatment of Disturbed Areas. It was determined that lake Option 1 was the least costly but it required the disposal of water from the lake excavations over a 4-year period. This required additional analysis addressing MOU requirements with downstream ground water users, maintaining regional water quality and Watermaster agreements, concerns about creating environmentally sensitive habitat, ground water levels, and pumping costs. The Team continued the review of the Fencing Work element. The Evaluation Team concluded that the Fencing work element should incorporate Metropolitan's standard practice of securing the entire project site, including the recreation areas, with Metropolitan's standard 7 foot high chain length fence with one foot of barbed wire except where the fencing abuts private property. At those locations, a 6 foot high brown-clad fencing with no barbed wire will be used. The Team further determined that no new fencing was required along the San Diego Canal until the recreation area is developed.
- On August 26th, the Team reviewed Engineering's recommendation letters for the Fencing, Seed Application and Landscape Maintenance, and Site Completion work elements. The team had no comments on the Seed Application and Landscape Maintenance and Fencing work elements and requested that these elements be advanced by Engineering for approval. The Team had minor comments on Site Completion and asked to have a corrected recommendation prepared by Engineering for approval. The Team continued the review of the Aesthetic Treatment of Disturbed Areas work element but the analysis of the lakes was not complete. Planning and Resources presented a recommended plan incorporating the results of the field review of the tree planting along the perimeter of the recreation areas. The plan was approved by the Team and Engineering was requested to develop a more refined plan and cost estimate for the recommendation. As time did not allow for review of the grading work element and additional analysis of the lakes and the trees, the Aesthetic Treatment of Disturbed Areas work element will be continued at a future meeting.

- On September 2nd, the Team continued to review of the Aesthetic Treatment of Disturbed Areas work element. Clarification of the minimum requirements for supplemental tree planting plan was required for Engineering to develop a more refined plan and cost estimate for recommendation. An updated lakes plan was presented as a result of input from Water Quality. Since water quality is not an issue, Water Quality suggested that the lakes be left in their current state of construction and allowed to fill with water. This would be the least costly option and would be compared with the second least costly Option 1, leaving the lakes dry. Opinions by Legal and Risk Management are required regarding fencing around of the lakes. Further evaluation by Engineering is still required. Plans for the High Water Roads were presented. Minimum Operations minimum criteria are required before evaluation can be completed. Impacts for deferring or eliminating work are to be evaluated.
- On September 9th, the Team continued to review of the Aesthetic Treatment of Disturbed Areas work element. An update on the supplemental tree planting plan and lakes was presented. Plant requirements were presented; however, additional time was required to develop an irrigation plan. Supplemental analyses on the lakes was presented; however, input from Legal and Risk Management are still required. Grading issue has not yet been resolved. Operations' criteria for the High Water Roads were presented and compared with the Engineering criteria. Engineering and Operations personnel would conduct a field reconnaissance to identify Operations minimum needs.

Other Activities:

- Bids from four Contractors were received on August 5th for the construction of the Tank Saddle Cutoff and Signal Spillway. The low bid of \$4,085,650 was received from the J.F. Shea Company, Inc., who is presently constructing the Secondary Inlet and North Rim Adits. The low bid is within the Baseline Budget line item of \$4,700,000. Award of this contract was recommended and approved at the September meeting of the Board of Directors.
- The procedure for reconciliation of the Oracle reporting and Engineering's Monthly Status Reports has not been completed by Engineering, and is promised for September 17th.