

June 15, 1999

To: Board of Directors (Engineering and Operations Committee—Information)
(Budget and Finance Committee—Information)

From: General Manager _____

Submitted by: Gary M. Snyder _____
Chief Engineer

Subject: Monthly Project Status Report for the Inland Feeder Project – May 1999
[Any discussion of claims will be heard in closed session - Conference with
Legal Counsel - Significant Exposure to Litigation (two matters) pursuant to
Gov. Code Section 54956.9(b).]

RECOMMENDATION(S)

For information only.

EXECUTIVE SUMMARY

This report summarizes progress and provides highlights for the Inland Feeder Project for the month ending May 1999.

DETAILED REPORT

The Inland Feeder Project continues on schedule supporting the 2004 on-line date. The overall project budget remains at \$1.188 billion, with total expenditures through May 1999 at \$330.9 million. It was reported to the Board in June that significant groundwater inflows experienced in the Arrowhead East Tunnel had prompted a review of measures that could be employed to reduce the inflows to levels consistent with those anticipated in the EIR. At this time, an intensified contact and cut-off grouting program within the excavated tunnel behind the Tunnel Boring Machine (TBM) has been successful in significantly reducing inflows. As the TBM resumes mining, intensified pre-excavation grouting, cut-off grouting and installation of rubber gaskets on the concrete support segments will be employed to further reduce inflows. Resumption of mining is expected in late July or early August.

Without increasing the existing Project budget of \$1.188 billion, the estimated costs for the Arrowhead East Tunnel, in order to perform these grouting measures, are expected to increase by approximately \$15.5 million, reducing the available contingency from \$250.1 million to \$234.6 million. Schedule impacts to the Arrowhead East Tunnel construction are expected to occur and are being assessed at this time. In addition, a similar analysis, including potential cost impacts, is being performed for the neighboring Arrowhead West Tunnel, which will experience

comparable groundwater conditions and will require a similar grouting program. Results of the evaluation including associated costs will be brought to the Board in August. Attachment A gives a summary of the Project's cost and schedule status.

Of the Project's seven reaches, five are in the construction phase, one (Mentone Pipeline) is being advertised for bids, and one (Highland Pipeline) is nearing completion of the design phase. Attachment A gives a summary of the Project's cost and schedule status.

Riverside Pipeline South construction is almost complete, with all 6.8 miles of pipe installed and 99 percent of the mortar lining completed. All work is expected to be completed in July 1999, approximately seven months ahead of schedule.

Progress on the Riverside Pipeline North also continues ahead of schedule with all 8.3 miles of pipe installed and 33 percent of the mortar lining completed. Construction is expected to complete in late 1999.

A total of 8,008 feet has been mined on the Arrowhead East Tunnel to date (See Attachment B for mining progress). TBM operations remain halted as cut-off and contact grouting operations continue for the purpose of reducing groundwater inflows into the tunnel. The grouting program is expected to continue through July 1999 with a target of reducing inflows to a level well below 500 gallons per minute, at which time mining will resume. The contractor continues modifications and maintenance on the TBM during this shutdown period.

Work continues on the Arrowhead West Tunnel at the Waterman Canyon Portal site. Fabrication of the TBM components and construction of the muck conveyor system are proceeding on schedule to support mining in late 1999. Installation of the 3,700-foot pipeline through the Campus Crusade for Christ has been completed. Mortar lining will begin in June 1999. Excavation and site work is proceeding at the Devil Canyon Portal site.

The Riverside Badlands Tunnel contractor has completed excavation of the Gilman Springs Portal. Construction is continuing on the roll-over muck handling facility and is completed on the TBM launching cradle. This facility is proceeding on schedule to support mining in late 1999. Fabrication is continuing on the concrete segments which will be used as initial ground support in the tunnel. Excavation and site work has been completed at the Opal Avenue Portal.

Construction bids for the Mentone Pipeline were opened in April; however, late modifications in the Biological Opinion, which deleted an adjacent sleeve for future utility crossings, has required re-bidding of this segment of pipeline. Construction work is scheduled to begin in late 1999.

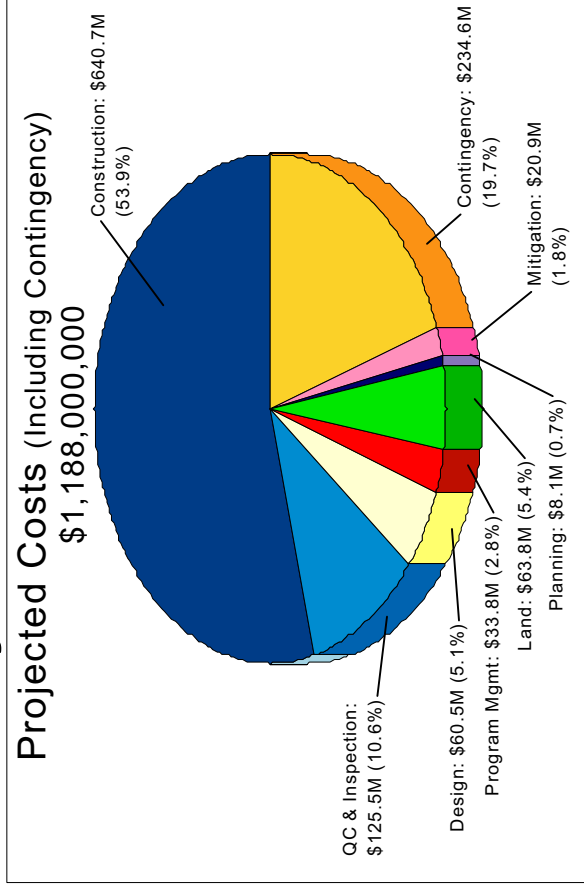
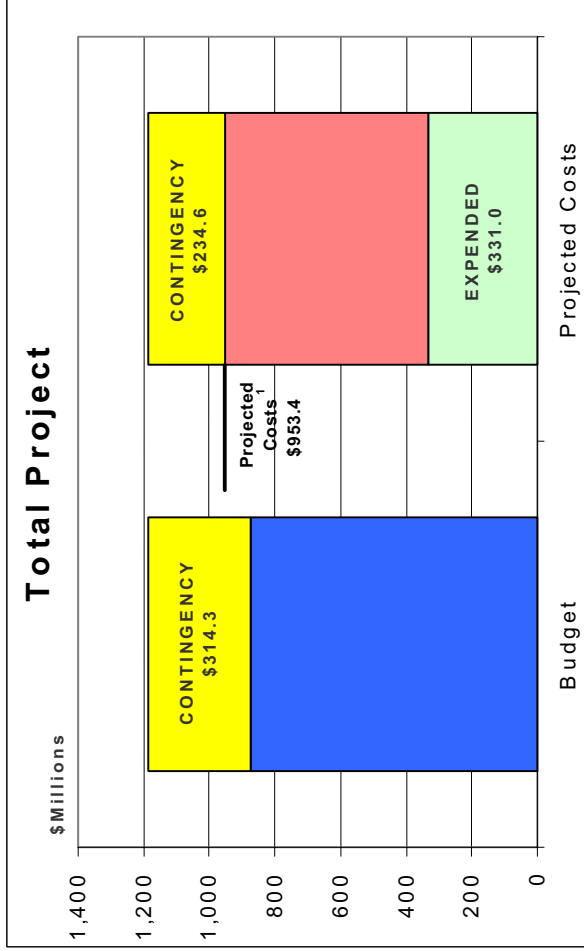
The Highland Pipeline design is nearly 90 percent complete and expected to advertise in late 1999.

DB/mg:rev5

Attachment 10-7A

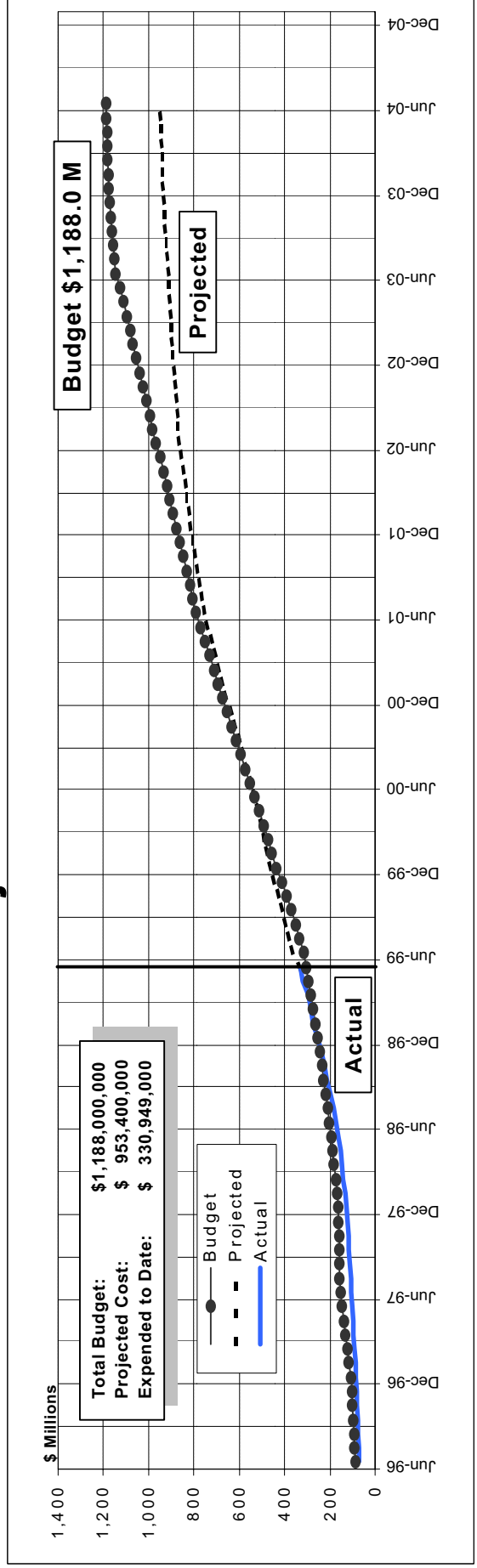
Attachment 10-7B

Financial Summary



1. Based on knowledge of current field conditions.

Project Cash Flow



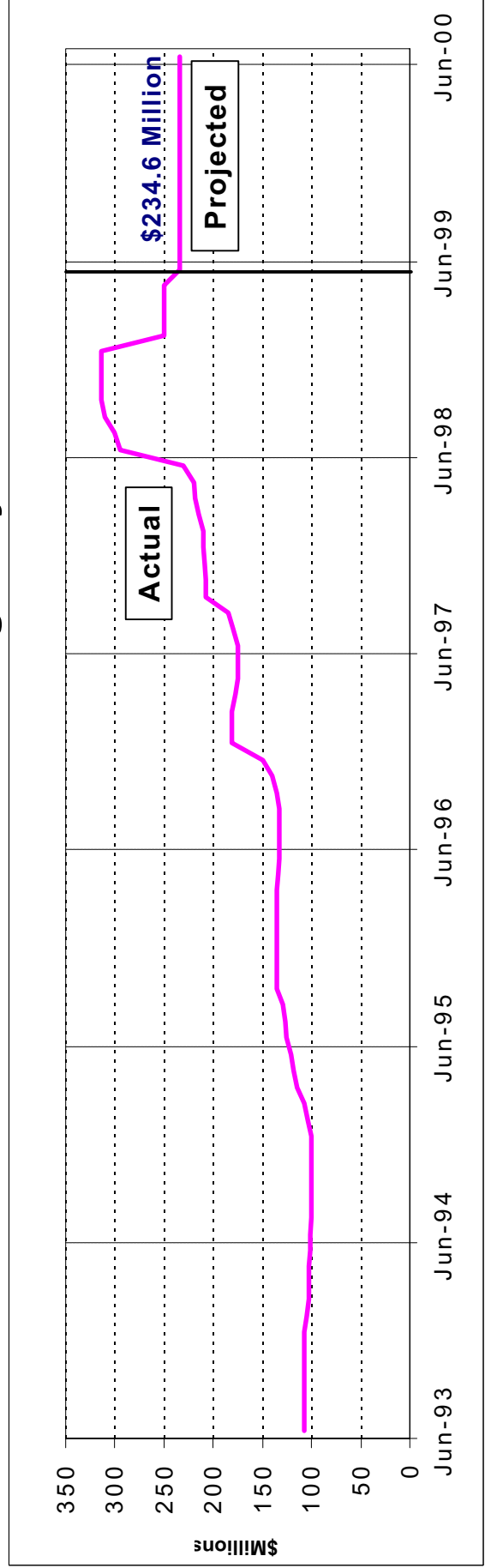
Schedule Summary

DESCRIPTION	PROGRESS		COMPLETION DATE		COMMENTS
	PLANNED ¹	ACTUAL	CONTRACT ²	FORECAST	
<i>Design</i>					
Highland Pipeline	98%	87%	Nov-98	Nov-99	
Mentone Pipeline	100%	100%	Complete	Complete	Bids opened; to be re-advertised based on Biological Opinion deletion of future utility sleeve installation.
<i>Construction</i>					
Arrowhead West Tunnel	23%	23%	Jun-02	Jun-02	TBM design and fabrication on-going. Preparation for pipeline segment in Devil Canyon underway.
Arrowhead East Tunnel	45%	36%	Jan-02	Jan-02	Mining has progressed to 8,008 feet. TBM maintenance and grouting program is expected to continue through July 1999. Forecast completion date under review.
Mentone-RUSD Pipeline	100%	100%	Complete	Complete	Construction completed on schedule in February 1998.
Riverside Badlands Tunnel	18%	19%	Jul-03	Jul-03	Completed work on TBM launching cradle at Gilman Springs Portal. Excavation and site work completed at Opal Avenue Portal.
Riverside Pipeline North	57%	92%	May-00	Dec-99	Pipe installation complete.
Riverside Pipeline South	68%	99%	Feb-00	Jul-99	Completed 33% of mortar lining operations. Pipe installation complete. Completed 99% of mortar lining operations.

1. Based on Contract Payments

2. Original Contract Duration + Approved Extensions

Available Contingency



Engineering Division
ARROWHEAD EAST TUNNEL

June 15, 1999

