

• **Board of Directors**
Engineering and Operations Committee

December 14, 1999 Board Meeting

10-2

Subject

Inland Feeder Project Status Report for October 1999

Description

As previously reported, excavation utilizing the tunnel boring machine (TBM) at the Arrowhead East Tunnel has been discontinued while an aggressive grouting program to reduce groundwater outflows is being completed. Grouting continues on a daily basis and has reduced outflows to less than 300 gallons per minute. Given that Metropolitan continues to incur costs during grouting operations, staff is urgently completing an Inland Feeder Technical Review (IFTR) to analyze a variety of options and will present its findings to the Board in November 1999. The projected completion date for the Arrowhead East Tunnel is late 2002 if a dual heading is adopted, which supports the Inland Feeder on-line date of 2004. A total of 8,008 feet has been mined on the Arrowhead East Tunnel to date (see [Attachment 1](#) for mining progress).

Progress on the 8.4-mile Riverside Pipeline North continues ahead of schedule with all pipe installed and 100 percent of the mortar lining completed. Hydrotesting of the pipeline was successfully completed during the reporting period. Construction is scheduled to be completed in November 1999.

Work has nearly been completed on the Arrowhead West Tunnel pipeline segments in Devil and Waterman Canyons. All other work, including the assembly of the TBM and fabrication of the tunnel liner, has been placed on hold pending completion of the IFTR.

The Riverside Badlands Tunnel contractor has completed installation of the TBM and muck disposal system and is prepared to commence mining.

Mentone Pipeline construction bids were opened on September 2, 1999. The contract award is on hold pending completion of the IFTR.

The Highland Pipeline design is approximately 90 percent complete and requests for construction bids will be advertised in early 2000.

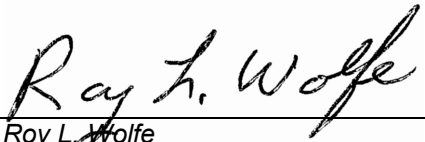

The Inland Feeder Project is scheduled for completion in 2004. The overall project budget remains at \$1.188 billion. Total expenditures to date are \$390.3 million (see [Attachment 2](#) for a financial summary and [Attachment 3](#) for a schedule summary).

Recent Developments

On November 5, 1999, mining at the Riverside Badlands Tunnel was placed on hold pending completion of the IFTR. More detailed information will be provided in the November report.

Policy

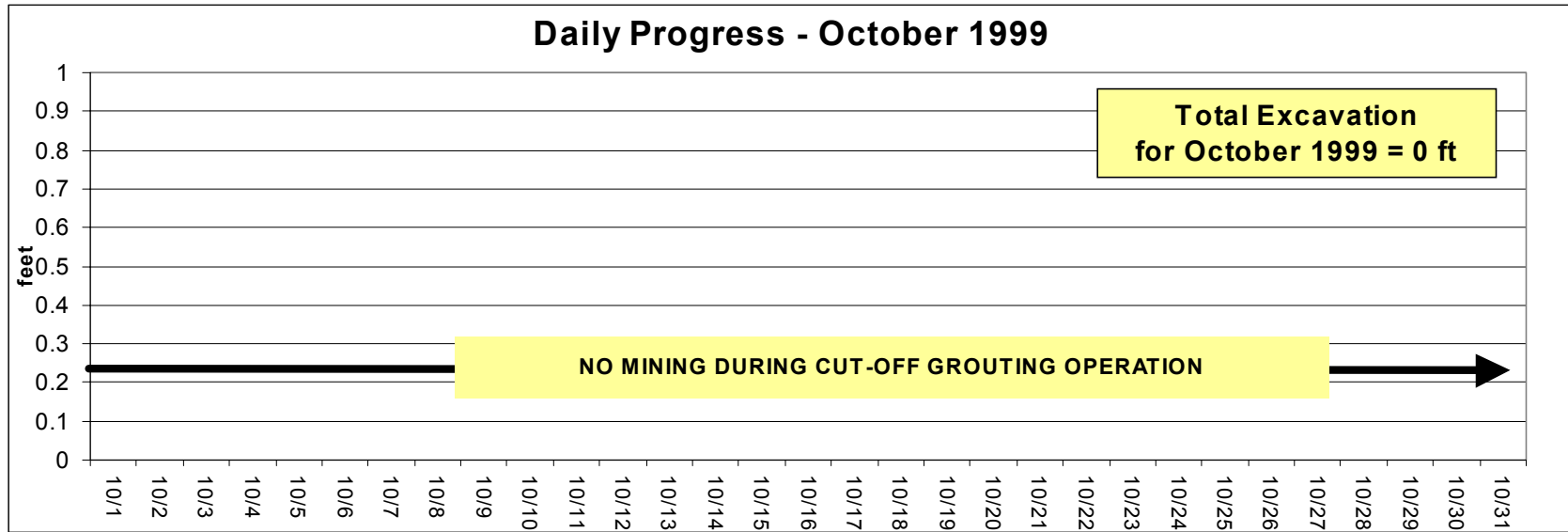
Board Request

	11/19/99
Roy L. Wolfe Acting Manager, Corporate Resources	Date
	11/22/99
Ronald R. Jeter General Manager	Date

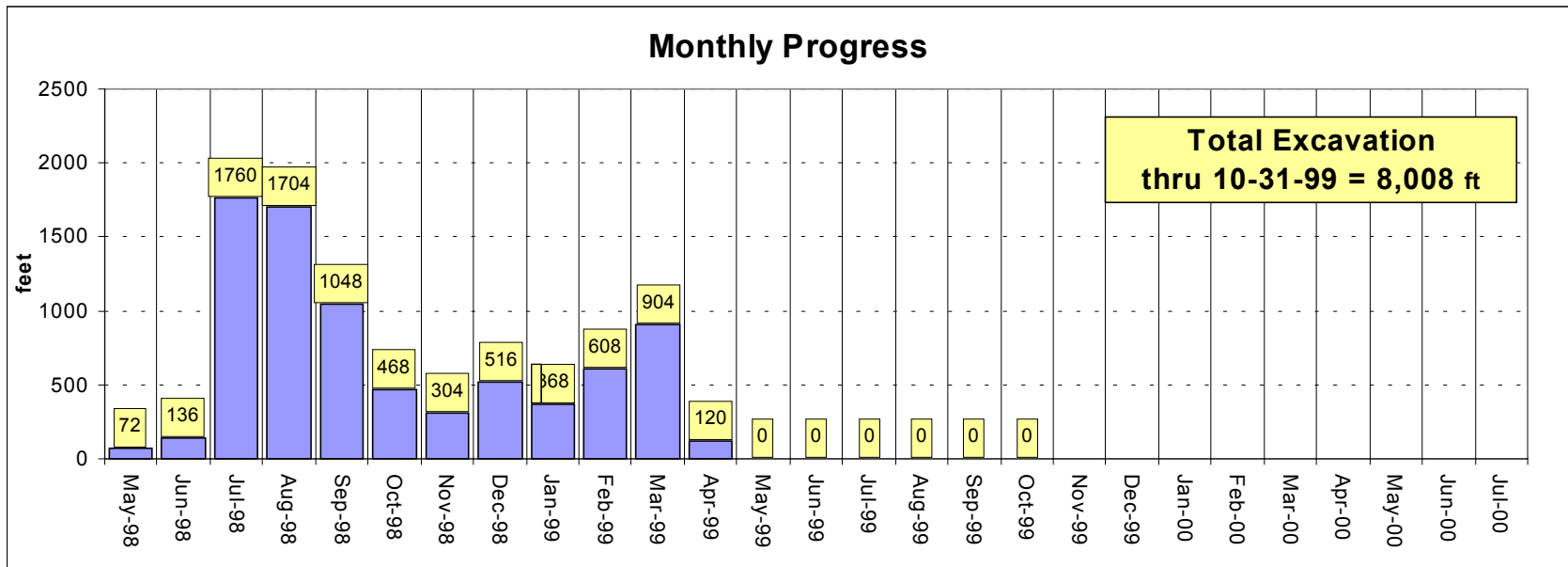
- Attachment 1 – Arrowhead East Tunnel mining progress**
- Attachment 2 – Financial summary**
- Attachment 3 – Schedule summary**

ARROWHEAD EAST TUNNEL

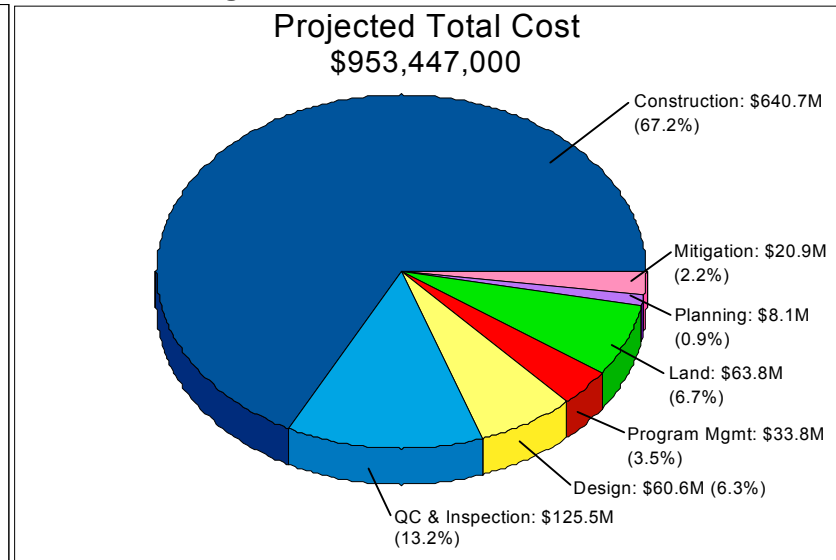
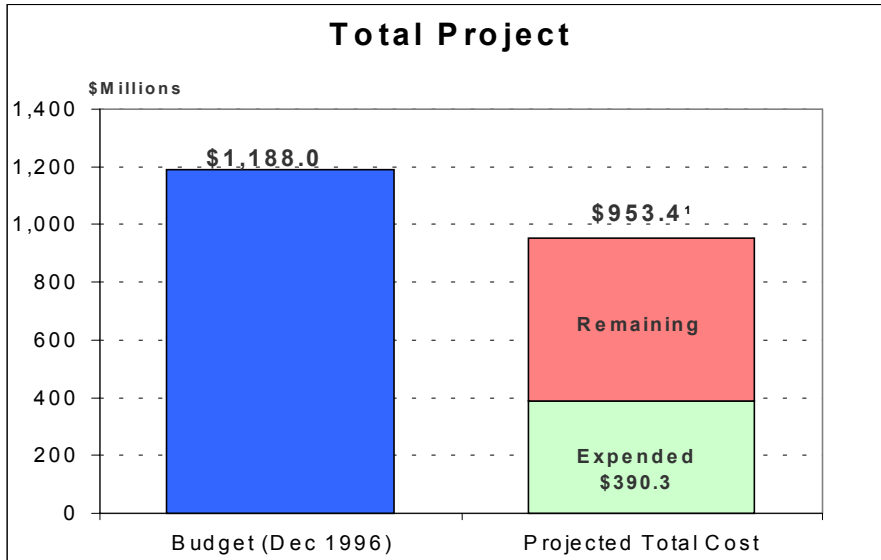
Daily Progress - October 1999



Monthly Progress

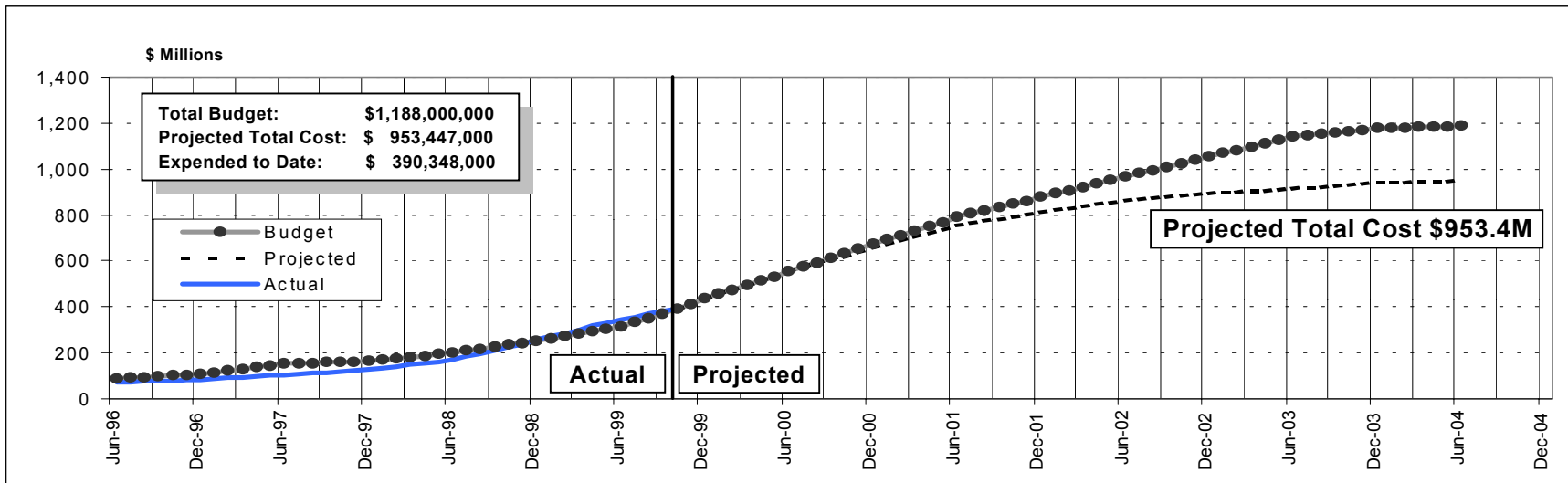


Financial Summary



1. Based on knowledge of current field conditions.

Project Cash Flow



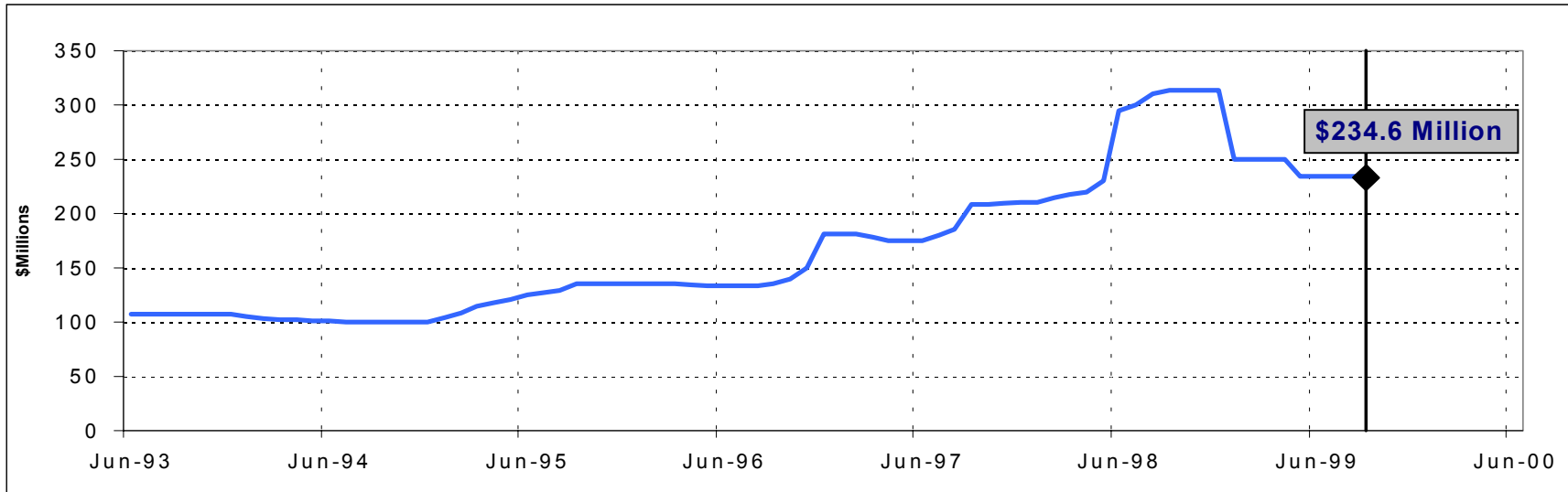
Schedule Summary

DESCRIPTION	PROGRESS		COMPLETION DATE		COMMENTS
	PLANNED ¹	ACTUAL	CONTRACT ²	FORECAST	
<i>Design</i>					
Highland Pipeline	98%	90%	Nov-98	Feb-00	Bids opened September 2, 1999.
Mentone Pipeline	100%	100%	Complete	Complete	
<i>Construction</i>					
Arrowhead West Tunnel	27%	25%	Jun-02	Jun-02	Assembly of TBM and pipe fabrication on hold at Waterman Canyon Portal. Waterman and Devil Canyon Pipelines are nearly complete. Mining has progressed to 8,008 feet. TBM maintenance and cutoff grouting program continues. Resumption of mining on hold.
Arrowhead East Tunnel	57%	38%	Sep-02	Dec-02	
Mentone-RUSD Pipeline	100%	100%	Complete	Complete	Construction completed February 1998.
Riverside Badlands Tunnel	22%	21%	Jul-03	Jul-03	Installed cutterhead on TBM at Gilman Springs Portal. Completed roll-over dump and conveyors.
Riverside Pipeline North	68%	99%	Jun-00	Nov-99	Pipe installation complete. Completed 100% of mortar lining operations. Completed hydrotesting.
Riverside Pipeline South	80%	100%	Complete	Complete	Construction completed August 1999.

1. Based on Approved Schedule

2. Original Contract Duration + Approved Extensions

Remaining Budget ¹



1. Project budget minus projected total cost.