

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

September 13, 2005 Board Meeting

9-1

Subject

Status report for the Inland Feeder Program for activities through July 2005 [**Any discussion of litigation to be heard in closed session. Conference with legal counsel--existing litigation (Shank/Balfour Beatty, a Joint Venture vs. Metropolitan Water District of Southern California, LASC Case No. BC 283438); to be heard in closed session pursuant to Gov. Code Section 54956.9(a). Conference with legal counsel--potential litigation relating to contractor claims on Contract No. 1542 for the Arrowhead Tunnels; to be heard in closed session pursuant to Gov. Code Section 54956.9(b) (one potential case)**]

Description

Arrowhead Tunnels

To improve mining advancement, Metropolitan and its contractor agreed to change certain protocols and operations for the next 1,000 feet of both tunnels. During this phase, the parties agreed that the contractor would be paid under the contract's time and materials (T&M) provision for all work over the next 1,000 feet. Work under this agreement commenced effective June 1 for the Arrowhead West Tunnel and June 6 for the Arrowhead East Tunnel. The following is a progress update for each tunnel for the month of July and through August 15.

Arrowhead East Tunnel – The contractor performed alternating cycles of grouting and tunnel boring machine mining during the month. A total of 805 feet were mined during July. The 1,000 feet T&M work was completed as of July 18. For the first half of August, another 435 feet were mined. This brings the total mined to date to 9,230 feet (41%).

Arrowhead West Tunnel – Alternating grouting and mining cycles continued as 410 feet were mined during July. Another 60 feet were mined up to August 15, bringing the total mined to date to 3,380 feet (17%). A total of 720 feet of the 1,000 feet have been mined under the T&M work through August 15. On August 4, the TBM encountered flowing/raveling ground conditions resulting in ground loss and high water inflows. Void filling and ground consolidation grouting are in progress.

Budget and Schedule

As of July 31, 2005, the projected cost at completion for the Inland Feeder Program is \$980 million. This represents a \$1.2 million increase from the previous month, attributed to the increased costs associated with the 1,000-foot T&M work on the Arrowhead Tunnels.

Total expenditures through July 2005 are \$812.4 million (see [Attachment 1](#) for a budget comparison and schedule summary and [Attachment 2](#) for the Arrowhead Tunnels financial status). The board-approved budget remains at \$1.186 billion.

The on-line date for the Inland Feeder is dependent upon the completion of the Arrowhead Tunnels. The Arrowhead Tunnels completion date has been previously estimated at late 2007. However, due to project delays, including the major flood on Christmas Day 2003, the completion date is currently estimated at late 2008. Pre-excavation grouting will likely continue to have an impact on project completion as the tunnels advance. Any changes to the project completion date, and costs associated with the schedule impacts, will be brought to the Board as new information becomes available.

Upon completion of construction, environmental mitigation measures will continue along the Arrowhead Tunnels alignment for up to two years in accordance with the Environmental Impact Report.

Policy

Board request

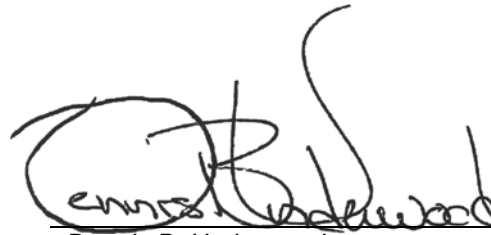
Fiscal Impact

Refer to [Attachment 1](#) and [Attachment 2](#).



Roy L. Wolfe
Manager, Corporate Resources

8/17/2005
Date



Dennis B. Underwood
CEO/General Manager

8/23/2005
Date

[Attachment 1 – Budget Comparison and Schedule Summary](#)

[Attachment 2 – Arrowhead Tunnels Financial Status](#)

BLA #3249

**Inland Feeder Program
Budget Comparison and Schedule Summary**

	BUDGET (July-05)	PROJECTED COST (July-05)	ACTUALS THRU (July-05)	PROGRESS		COMPLETION DATE		COMMENTS
				PLANNED % COMPLETE	ACTUAL % COMPLETE (July-05) (1)	CONTRACT (2) (3)	FORECAST (July-05) (3)	
<u>Active Construction</u>								
Arrowhead Tunnels	\$ 334,727,000	\$ 310,046,000	\$ 151,680,000	72%	42%	Mar-07	Nov-08	Under construction
Highland Pipeline	\$ 55,337,000	\$ 55,092,000	\$ 54,919,000	100%	100%	Sep-04	-----	Performing Contract Close-out
<u>Construction Support</u>								
Right-of-Way and Land	\$ 50,172,000	\$ 50,172,000	\$ 49,840,000	-----	99%	-----	-----	-----
Environmental Planning/Mitigation	\$ 18,598,000	\$ 18,598,000	\$ 14,126,000	-----	76%	-----	-----	-----
Program Management	\$ 32,401,000	\$ 32,401,000	\$ 28,877,000	-----	89%	-----	-----	-----
<u>Completed Projects</u>								
Arrowhead West Tunnel Constr.	\$ 44,563,000	\$ 44,496,000	\$ 44,492,000	-----	100%	-----	-----	-----
Arrowhead East Tunnel Constr.	\$ 121,753,000	\$ 121,753,000	\$ 121,421,000	-----	100%	-----	-----	-----
Arrowhead Tunnels Design	\$ 29,380,000	\$ 29,381,000	\$ 29,381,000	-----	100%	-----	-----	-----
Mentone Pipeline	\$ 32,112,000	\$ 32,112,000	\$ 32,033,000	-----	100%	-----	-----	-----
Highland/Mentone Pipeline Design	\$ 16,122,000	\$ 16,121,000	\$ 16,121,000	-----	100%	-----	-----	-----
Riverside Badlands Tunnel	\$ 144,931,000	\$ 144,931,000	\$ 144,908,000	-----	100%	-----	-----	-----
Riverside North Pipeline	\$ 55,713,000	\$ 55,713,000	\$ 55,713,000	-----	100%	-----	-----	-----
Riverside South Pipeline	\$ 42,418,000	\$ 42,418,000	\$ 42,418,000	-----	100%	-----	-----	-----
Inland Feeder Study / Initial Planning	\$ 8,024,000	\$ 8,024,000	\$ 8,024,000	-----	100%	-----	-----	-----
Owner Controlled Insurance Program	\$ 18,700,000	\$ 18,700,000	\$ 18,467,000	-----	99%	-----	-----	-----
Expended To Date			\$ 812,418,000					
Total Cost To Complete	\$ 1,004,951,000	\$ 979,958,000						
Remaining Budget	\$ 181,509,000	\$ 206,502,000						
Total Approved Budget	\$ 1,186,460,000	\$ 1,186,460,000						

(1) Based on work completed for construction reaches and \$ expended for construction support.

(2) Based on original contract duration and approved extensions.

(3) Completion date for Arrowhead Tunnels does not include time for grouting.

NOTE: Overall completion = 37 of 44 miles (84%)

Inland Feeder Program
Arrowhead Tunnels Financial Status
(\$ in Millions)

Construction Contract No. 1542	Budget June - 2005	Committed June - 2005	% of Budget Committed
Mobilization	\$ 7.4	\$ 7.0	94.6%
Plant equipment / materials	\$ 82.1	\$ 61.5	74.9%
<u>Arrowhead East</u>			
Portal / pipeline work	\$ 11.1	\$ 6.7	60.4%
Excavation / final lining	\$ 70.4	\$ 26.8	38.1%
Grouting	\$ 11.6	\$ 1.3	11.2%
<u>Arrowhead West</u>			
Portal / pipeline work	\$ 6.8	\$ 1.6	23.5%
Excavation / final lining	\$ 56.7	\$ 14.8	26.1%
Grouting	\$ 11.6	\$ 6.2	53.4%
Construction Contract Total	\$ 257.7	\$ 125.9	48.9%

NOTE: Invoices paid through July 2005 = \$126.7 million

Contractor's July 2005 cost loaded schedule not available at the time of submittal for this letter. Budget and Committed are through June 2005. July data will be presented at the September 2005 Board.