

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

January 11, 2005 Board Meeting

10-1

Subject

Status report for the Inland Feeder Program for activities through November 2004 [**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 § 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 § 54956.9(b) (one potential case)**]

Description

Arrowhead Tunnels (ongoing)

Arrowhead East Tunnel – A void in the geologic formation was encountered at the tunnel face on November 1, 2004. A bulkhead was built to stabilize the face and fill the void with grout. A pre-excitation grouting cycle began on November 2, 2004 and was temporarily halted in order to drill drain holes to relieve water pressure and ensure stabilization of the tunnel face. On November 4, 2004, the contractor ceased mining activities in the Arrowhead East Tunnel. A total of 5,810 feet (26 percent) has been mined through November.

Arrowhead West Tunnel – The contractor attempted mining on October 26, 2004 and discovered that the tunnel boring machine was in a partial bind due to the failure of the shield's tailskin portion to advance. Typical mining resumed on November 1, 2004. A pre-excitation grouting cycle took place from November 4 through November 11, 2004 and mining resumed on November 12, 2004. A total of 1,725 feet (8 percent) has been mined through November.

Arrowhead East & West Tunnels – Reaches 1 & 2 (completed contracts)

The Board approved a partial settlement at its May 2004 meeting of the pending litigation relating to the previous contracts. All claims of Shank/Balfour Beatty and its subcontractors Coast Geo and IAFD, as well as a pending Government Code claim relating to the Riverside Badlands Tunnel, have been settled. The only remaining issues in the pending litigation are the claims by the pipe vendor, Ameron, in the amount of approximately \$11.5 million. On May 17, 2004, Metropolitan filed a cross-complaint against Ameron, alleging the submission of false claims. The trial began on September 22, 2004. All testimony is completed and closing arguments are scheduled for completion on December 22, 2004. The court has 60 days after completion of the trial to render a decision.

Budget and Schedule

The projected cost at completion for the Inland Feeder Program is \$958.4 million, excluding costs for pending claims on the original Arrowhead Tunnels contract and the Highland Pipeline contract. Due to the confidentiality of recently settled claims with Shank/Balfour Beatty, the original Arrowhead Tunnels contractor, the costs associated with these claims will be added to the program's projected cost upon resolution of the Ameron claim.

Total expenditures through November 2004 are \$751.9 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 unchanged 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 previously been estimated at late 2007. However, due to project delays,

including the major flood at Christmas 2003, and the amount of pre-excavation grouting for the control of groundwater projected over the length of remaining tunnel, the completion date is currently estimated at 2008. Pre-excavation grouting will likely continue to have a significant 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.

New Developments

Arrowhead East Tunnel – On December 1, the contractor resumed mining activities which entailed the continuation of pre-excavation grouting to stabilize the face. The contractor has claimed that the ground conditions over the next 300 feet will constitute a Differing Site Condition (DSC). Metropolitan disputes this claim. In order to advance the work on the project, a tentative agreement (pending contractor signature as of December 15) has been reached. Under the terms of the agreement, the contractor will mine approximately the next 300 feet pursuant to Metropolitan’s direction regarding means and methods. Metropolitan’s direction will likely require the use of specialty subcontractors designated by Metropolitan and may require the contractor to work 6- or 7-day work-weeks. The contractor agrees to accept and perform in strict accordance with all of Metropolitan’s field directions. The contractor will be compensated on a Time and Materials basis for work performed under this direction. The parties agree to work cooperatively to improve the advancement rate in the tunnel. Following the completion of the 300-foot section, Metropolitan and the contractor will evaluate the effectiveness of the means and methods employed and discuss their application for future mining.

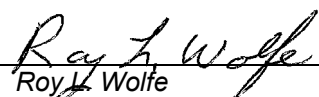
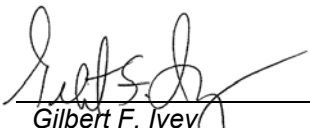
Arrowhead West Tunnel – From November 12 through December 3, the TBM advanced another 200 feet for a total of 1,925 feet mined to date. A pre-excavation grouting cycle was completed from December 4 through 13. Mining resumed on December 14. Pursuant to the tentative agreement mentioned above, the next pre-excavation grouting cycle in Arrowhead West Tunnel will be performed by the contractor using his own means and methods. The goal is to develop methods that will accelerate future grouting cycles. Metropolitan will compensate the contractor for the work at unit rates set forth in the contract.

Policy

Board request

Fiscal Impact

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

 Roy L. Wolfe Manager, Corporate Resources	12/22/2004 Date
 Gilbert F. Ivey for Ronald R. Gastelum Chief Executive Officer	12/23/2004 Date

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

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

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

	BUDGET (Nov-04)	PROJECTED COST (Nov-04)	ACTUALS THRU (Nov-04)	PROGRESS		COMPLETION DATE		COMMENTS	
				PLANNED % COMPLETE	ACTUAL % COMPLETE (Nov-04) ⁽¹⁾	CONTRACT (2) (3)	FORECAST (Nov-04) ⁽³⁾		
<u>Active Construction</u>									
Arrowhead Tunnels	\$ 303,517,000	\$ 288,567,000	\$ 94,136,000	63%	35%	Mar-07	Nov-08	Under construction	
Highland Pipeline	\$ 55,337,000	\$ 55,026,000	\$ 54,830,000	100%	100%	Sep-04	-----	Performing Contract Close-out	
<u>Construction Support</u>									
Right-of-Way and Land	\$ 50,172,000	\$ 50,172,000	\$ 48,677,000	-----	97%	-----	-----	-----	
Environmental Planning/Mitigation	\$ 18,598,000	\$ 18,598,000	\$ 13,882,000	-----	75%	-----	-----	-----	
Program Management	\$ 32,401,000	\$ 32,401,000	\$ 27,328,000	-----	84%	-----	-----	-----	
<u>Completed Projects</u>									
Arrowhead West Tunnel Constr. ⁽⁴⁾	\$ 44,563,000	\$ 44,495,000	\$ 44,492,000	-----	100%	-----	-----	-----	
Arrowhead East Tunnel Constr. ⁽⁴⁾	\$ 121,753,000	\$ 121,753,000	\$ 121,420,000	-----	100%	-----	-----	-----	
Arrowhead Tunnels Design	\$ 29,380,000	\$ 29,381,000	\$ 29,381,000	-----	100%	-----	-----	-----	
Mentone Pipeline	\$ 32,112,000	\$ 32,112,000	\$ 32,011,000	-----	100%	-----	-----	-----	
Highland/Mentone Pipeline Design	\$ 16,122,000	\$ 16,121,000	\$ 16,121,000	-----	100%	-----	-----	-----	
Riverside Badlands Tunnel ⁽⁵⁾	\$ 144,931,000	\$ 144,931,000	\$ 144,912,000	-----	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	\$ 18,557,000	-----	99%	-----	-----	-----	
Expended To Date			\$ 751,902,000						
Total Cost To Complete	\$ 973,741,000	\$ 958,412,000							
Remaining Budget	\$ 212,719,000	\$ 228,048,000							
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.

(4) Budget does not include Contractor Claims of \$5.3M and \$15.8M for the Arrowhead East Tunnel and Arrowhead West Tunnel, respectively.

(5) Will reduce budget to equal actuals following resolution of Contractors Claim of \$500K. Unused budget to be transferred to Remaining Budget category.

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

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

Construction Contract No. 1542	Budget Nov - 2004	Committed Nov - 2004	% of Budget Committed
Mobilization	\$ 7.4	\$ 6.7	90.5%
Plant equipment / materials	\$ 76.3	\$ 47.0	61.6%
<u>Arrowhead East</u>			
Portal / pipeline work	\$ 11.1	\$ 6.6	59.5%
Excavation / final lining	\$ 67.4	\$ 16.1	23.9%
Grouting	\$ 11.6	\$ 0.3	2.6%
<u>Arrowhead West</u>			
Portal / pipeline work	\$ 6.8	\$ 1.6	23.5%
Excavation / final lining	\$ 54.6	\$ 6.3	11.5%
Grouting	\$ 11.6	\$ 2.0	17.2%
Construction Contract Total	<u>\$ 246.8</u>	<u>\$ 86.6</u>	<u>35.1%</u>

NOTE: Invoices paid through November 2004 = \$79.9 million