

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

December 14, 2004 Board Meeting

10-1

Subject

Status report for the Inland Feeder Program for activities through October 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 – Chemical grouting and pressure relief/drainage holes were drilled and chemical grouting operations were performed. The tunnel boring machine mining resumed on October 15 and progressed another 120 feet through the end of the month. A total of 5,795 feet (26 percent) has been mined through October.

Arrowhead West Tunnel – The contractor completed the current pre-excavation grouting cycle on September 30. Upon attempting to move the tunnel boring machine forward, it was discovered that the shield had become earthbound. On October 11, an unsuccessful attempt to free the machine was made using auxiliary push-jacks. To reduce resistance and pressures on the shield, the contractor is clearing the ground around the shield to reduce the skin friction until the push-jacks are able to free the machine. A total of 1,540 feet (7 percent) has been mined through October.

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 and is anticipated to last through October 18. Both parties waived jury. 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 October 2004 are \$742.6 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 – A void 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-excavation 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.

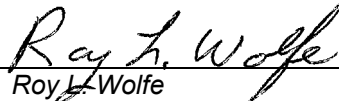
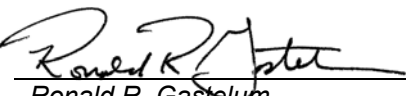
Arrowhead West Tunnel – Tunnel boring machine mining resumed on November 1, 2004. A pre-excavation grouting cycle took place from November 4 through November 11, 2004 and mining resumed on November 12, 2004. A total of 1,645 feet (7 percent) has been mined through November.

Policy

Board request

Fiscal Impact

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

 Roy L. Wolfe Manager, Corporate Resources	11/10/2004 Date
 Ronald R. Gastelum Chief Executive Officer	11/19/2004 Date

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

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

BLA #2463

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

	BUDGET (Oct-04)	PROJECTED COST (Oct-04)	ACTUALS THRU (Oct-04)	PROGRESS		COMPLETION DATE		COMMENTS
				PLANNED % COMPLETE	ACTUAL % COMPLETE (Oct-04) (1)	CONTRACT (2) (3)	FORECAST (Oct-04) (3)	
<u>Active Construction</u>								
Arrowhead Tunnels	\$ 303,517,000	\$ 288,567,000	\$ 85,341,000	61%	34%	Mar-07	Nov-08	Under construction
Highland Pipeline	\$ 55,337,000	\$ 55,027,000	\$ 54,788,000	100%	100%	Sep-04	-----	Performing Contract Close-out
<u>Construction Support</u>								
Right-of-Way and Land	\$ 50,172,000	\$ 50,172,000	\$ 48,674,000	-----	97%	-----	-----	-----
Environmental Planning/Mitigation	\$ 18,598,000	\$ 18,598,000	\$ 13,661,000	-----	73%	-----	-----	-----
Program Management	\$ 32,401,000	\$ 32,401,000	\$ 27,151,000	-----	84%	-----	-----	-----
<u>Completed Projects</u>								
Arrowhead West Tunnel Constr. (4)	\$ 44,563,000	\$ 44,495,000	\$ 44,491,000	-----	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	\$ 32,002,000	-----	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	\$ 144,907,000	-----	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			\$ 742,648,000					
Total Cost To Complete	\$ 973,741,000	\$ 958,413,000						
Remaining Budget	\$ 212,719,000	\$ 228,047,000						
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 Oct - 2004	Committed Oct - 2004	% of Budget Committed
Mobilization	\$ 7.4	\$ 6.7	90.5%
Plant equipment / materials	\$ 62.2	\$ 38.6	62.1%
<u>Arrowhead East</u>			
Portal / pipeline work	\$ 11.0	\$ 6.6	60.0%
Excavation / final lining	\$ 64.2	\$ 12.8	19.9%
Grouting	\$ 11.6	\$ 0.3	2.6%
<u>Arrowhead West</u>			
Portal / pipeline work	\$ 6.8	\$ 1.6	23.5%
Excavation / final lining	\$ 68.1	\$ 8.7	12.8%
Grouting	\$ 11.6	\$ 1.7	14.7%
Construction Contract Total	<u>\$ 242.9</u>	<u>\$ 77.0</u>	<u>31.7%</u>

NOTE: Invoices paid through October 2004 = \$71.7 million