

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

February 10, 2004 Board Meeting

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**10-1**

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**Subject**

Status report for the Inland Feeder Program for activities through December 2003 [**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. BC283438); to be heard in closed session pursuant to Gov. Code § 54956.9(a); and significant exposure to litigation (one matter); to be heard in closed session pursuant to Gov. Code § 54956.9(b)**]

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**Description**

**Arrowhead Tunnels (new contract)**

On the afternoon of December 25, 2003, a storm in the San Bernardino Mountains produced a large amount of rainfall in the Waterman Canyon and Strawberry Creek Watershed resulting in massive landslides and debris flow in Waterman Creek. This event resulted in severe flooding and a massive inundation of debris at the Waterman Canyon portal site flooding the contractors tunnel boring machine (TBM) and portal support equipment. Construction at the portal was completely shut down due to the holiday season and no personnel were present on site at the time of the incident. Personnel were allowed back on the site December 26 but were not allowed to start recovery operations until December 29 due to search and rescue efforts that were being performed due to the tragic incident at a church camp upstream. On December 29, the contractor began to excavate the debris and mud in the Waterman Creek area in order to install temporary stream diversion works to protect the job site and initiated operations to pump water out of the inundated portal area. An assessment is being made by the contractor to determine the magnitude of the damage. Monthly updates will be provided to the Board.

Arrowhead East Tunnel – TBM mining began on August 18, 2003. Through December, 2,950 feet have been mined. Pre-excavation grouting is being performed as minimal groundwater is being encountered.

Arrowhead West Tunnel – TBM mining began on October 20, 2003. Through December, 245 feet have been mined. Mining was halted in early December when the TBM encountered an area of unstable ground. The contractor has completed stabilizing the area through surface grouting.

Prior to the flooding incident on December 25, the contractor was 54 days behind schedule due to delays in completing mobilization activities and the interruption of mining due to unstable ground conditions. As stated above, additional schedule delays resulting from the recent incident will be forthcoming.

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

It has been reported for several months that Shank/Balfour Beatty's claimed costs regarding delay and deletion of mining are pending. Shank/Balfour Beatty filed litigation in Superior Court in Los Angeles County in October 2002. A confidential mediation of this matter was held on December 11 and 12, 2003 with a professional mediator. The mediation did not result in a proposed settlement of the dispute. The trial of this matter is scheduled to begin on March 30, 2004.

**Highland Pipeline – Reach 3**

The contractor has completed installation of pipe (28,000 feet) and continues pipeline backfill and mortar lining operations. At the November meeting, the Board authorized an increase in change orders to L. H. Woods and Sons, Inc. to construct a connection between San Bernardino Valley Municipal Water District’s Foothill Feeder and the Program’s Highland Pipeline. Staff has negotiated the change order and work is scheduled to begin in January 2004. The total cost for the connection, including construction management, is \$2.3 million.

**Budget and Schedule**

The projected cost for the Inland Feeder Program is \$951.3 million. Claims associated with the deletion of work for the original Arrowhead East and West Tunnels contracts are pending and excluded from the estimated total project cost. Claims pending for the Arrowhead East and West Tunnels are \$5.3 million and \$15.8 million, respectively. A \$429,000 claim for the completed Riverside Badlands Tunnel is also pending.

Total expenditures through December 2003 are \$700.3 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 projected on-line date for the Inland Feeder is scheduled for 2007 depending upon the level of grouting that will be required on the Arrowhead Tunnels. 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**

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Board request

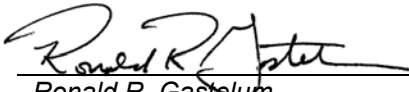
**Fiscal Impact**

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

  
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Roy L. Wolfe  
Manager, Corporate Resources

1/20/2004  
Date

  
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Ronald R. Gastelum  
Chief Executive Officer

1/20/2004  
Date

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

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

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

	BUDGET (Dec-03)	PROJECTED COST (Dec-03)	ACTUALS THRU (Dec-03)	PROGRESS		COMPLETION DATE		COMMENTS
				PLANNED % COMPLETE	ACTUAL % COMPLETE (Dec-03) (1)	CONTRACT (2) (3)	FORECAST (Dec-03) (3)	
<b><u>Active Construction</u></b>								
Arrowhead Tunnels (4)	\$ 302,567,000	\$ 283,009,000	\$ 51,307,000	29%	18%	Sep-06	Sep-06	Under construction
Highland Pipeline	\$ 55,137,000	\$ 54,262,000	\$ 50,056,000	66%	98%	Sep-04	May-04	Under construction
<b><u>Construction Support</u></b>								
Right-of-Way and Land	\$ 49,072,000	\$ 49,072,000	\$ 48,459,000	-----	99%	-----	-----	-----
Environmental Planning/Mitigation	\$ 18,598,000	\$ 18,598,000	\$ 13,071,000	-----	70%	-----	-----	-----
Program Management	\$ 32,401,000	\$ 32,401,000	\$ 25,401,000	-----	78%	-----	-----	-----
Arrowhead Tunnels Claims Cost	\$ 950,000	\$ 950,000	\$ 152,000	-----	16%	-----	-----	-----
<b><u>Completed Projects</u></b>								
Arrowhead West Tunnel Constr. (5)	\$ 43,950,000	\$ 43,883,000	\$ 43,878,000	-----	100%	-----	-----	-----
Arrowhead East Tunnel Constr. (5)	\$ 121,753,000	\$ 121,753,000	\$ 121,046,000	-----	100%	-----	-----	-----
Arrowhead Tunnels Design	\$ 29,380,000	\$ 29,380,000	\$ 29,380,000	-----	100%	-----	-----	-----
Mentone Pipeline	\$ 32,112,000	\$ 32,112,000	\$ 31,889,000	-----	100%	-----	-----	-----
Highland/Mentone Pipeline Design	\$ 16,122,000	\$ 16,121,000	\$ 16,121,000	-----	100%	-----	-----	-----
Riverside Badlands Tunnel (6)	\$ 144,931,000	\$ 144,931,000	\$ 144,810,000	-----	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	\$ 18,538,000	-----	99%	-----	-----	-----
<b>Expended To Date</b>			<b>\$ 700,263,000</b>					
<b>Total Cost To Complete</b>	<b>\$ 971,828,000</b>	<b>\$ 951,327,000</b>						
<b>Remaining Budget</b>	<b>\$ 214,632,000</b>	<b>\$ 235,133,000</b>						
<b>Total Approved Budget</b>	<b>\$ 1,186,460,000</b>	<b>\$ 1,186,460,000</b>						

(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) Contractor's schedule not available at the time of submittal for this letter. Progress is through November 2003. December 2003 data will be presented at the February 2004 Board.

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

(6) 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 = 36 of 44 miles (82%)

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

<b>Construction Contract No. 1542</b>	<b>Budget November - 2003</b>	<b>Committed November - 2003</b>	<b>% of Budget Committed</b>
Mobilization	\$ 7.4	\$ 6.1	82.4%
Plant equipment / materials	\$ 62.1	\$ 24.9	40.1%
<u>Arrowhead East</u>			
Portal / pipeline work	\$ 11.0	\$ 6.2	56.4%
Excavation / final lining	\$ 64.1	\$ 5.5	8.6%
Grouting	\$ 11.6	\$ -	
<u>Arrowhead West</u>			
Portal / pipeline work	\$ 6.7	\$ 1.3	19.4%
Excavation / final lining	\$ 67.9	\$ 0.3	0.4%
Grouting	\$ 11.6	\$ -	
Construction Contract Total	<u>\$ 242.4</u>	<u>\$ 44.3</u>	<u>18.3%</u>

NOTE: Invoices paid through November 2003 = \$40.3 million

Contractor's December 2003 cost loaded schedule not available at the time of submittal for this letter. Budget and Committed are through November 2003. December data will be presented at the February 2004 Board.