



● **Board of Directors**
Engineering and Capital Programs Committee

August 18, 2009 Board Meeting

9-1

Subject

Status report for the Inland Feeder Program for activities through June 2009

Description

Work Completed to Date

The Inland Feeder Program consists of 44 miles of pipelines and tunnels that will enable Metropolitan to convey up to 1,000 cubic feet per second of State Water Project (SWP) supplies from Devil Canyon Afterbay to Diamond Valley Lake (DVL). To date, eight of nine construction contracts totaling \$542 million have been completed. These completed contracts represent 36.3 miles or 82 percent of the Inland Feeder's length. Principal remaining work includes completion of the Arrowhead East and West Tunnels, which are presently under construction by a joint venture of Shea-Kenny.

The completed portion of the Inland Feeder has been in service since 2003 via an interconnection that was constructed between the Inland Feeder and San Bernardino Valley Municipal Water District's Foothill Pipeline. This connection allows Metropolitan to convey up to 200 cfs of SWP supplies from the East Branch of the California Aqueduct to the Inland Feeder for delivery to DVL. To date, over 620,000 acre-feet of SWP water have been delivered to DVL through this connection. Initial deliveries through the entire Inland Feeder are expected in November 2009, once the Arrowhead Tunnels are completed. Due to recent increases in allotments of SWP supplies to Metropolitan, initial deliveries will range up to 600 cfs.

Arrowhead Tunnels

Arrowhead East Tunnel (AET) – The contractor completed contact grouting to fill voids that typically remain after cellular grouting. As contact grouting was completed, inflows of water into the tunnel were reduced to zero. Work began on the installation of pipe outside the tunnel at Strawberry Creek, which connects the tunnel to the eastern end of the previously constructed pipeline running between the AET and AWT. The contractor continued demobilization activities at the Strawberry Creek portal.

Arrowhead West Tunnel (AWT) – In June, the contractor completed cellular backfill grouting from both the Devil Canyon and Waterman Canyon portals. Contact grouting work continued to fill voids remaining from the cellular grouting. The contractor began installation of pipe outside the tunnel at Waterman Canyon, which connects the tunnel to the western end of the previously constructed pipeline running between the AET and AWT. Construction continued on the access structure at the Waterman Canyon portal.

Etiwanda Reservoir Pipe Storage Area – Over the past several years, the pipe liner for the AET and AWT was stored at Metropolitan's Etiwanda Reservoir site on a temporary basis until mining was completed and the pipe could be installed in the tunnels. Now that the pipe has been removed from Etiwanda, repairs are required to return the storage area to its original condition. In June, the contractor completed repairs to asphalt roads, curbs, and gutters damaged during the pipe handling. A separate contract will be issued in late 2009 to perform additional necessary site-work to fully restore site grading, landscaping, and lighting.

Program Management

Staff and the U.S. Forest Service continued to coordinate activities related to monitoring and minimizing tunnel water inflows into the Arrowhead East Tunnel.

Budget and Schedule

The AET and AWT are on virtually identical schedules, with final completion of the construction contract expected in early 2010. This date is approximately six months ahead of the September 2010 target established in August 2006 with the revised contract. Staff presently anticipates that the tunnel will be ready for water deliveries by November 2009. Follow-on activities including site grading and landscaping will be completed in early 2010.

There are currently two pending eminent domain actions to acquire property rights from Campus Crusade for Christ. The first action commenced in 1997 and resulted in a favorable judgment for Metropolitan following a court trial in 2003. That judgment was reversed on appeal to the California Supreme Court, and the case was remanded in 2007 for a retrial. Metropolitan is engaged in extensive discovery and preparation of expert witnesses for the retrial. At this time, no date for the retrial has been set. In December 2008, the Legal Department filed a second eminent domain action to acquire an additional four-year construction easement over 7.5 acres of land at the AWT Waterman Canyon portal. On April 30, 2009, the trial court issued a stay of this case pending the resolution of the first eminent domain action. Because the final amount of compensation owed to Campus Crusade is dependent on court decisions, the total cost for these actions are unknown and are not reflected in the updated total projected cost for the Inland Feeder as discussed below. As court decisions are rendered and costs are finalized, staff will inform the Board. No additional funds are anticipated to be needed, as sufficient funds are available within the program's Remaining Budget.

Following board authorization of a settlement agreement and contract amendment with the Arrowhead Tunnels contractor in August 2006, staff conducted a complete review of the program budget to estimate the total projected cost to complete the Inland Feeder Program. Based on the revised September 2010 completion date for the Arrowhead Tunnels as presented to the Board in August 2006, the updated total projected cost for the Inland Feeder is estimated to be \$1.146 billion. Total expenditures through June 2009 are \$1.097 billion (see [Attachment 1](#) for the Projected Cost/Expenditures). The board-approved budget for the entire program remains at \$1.186 billion. [Attachment 2](#) shows the cash flow for the Arrowhead Tunnels construction contract compared to the planned progress and expenditures set forth in the August 2006 contract amendment.

The payments on the contractor's incentive/risk program are discussed with the Board on a regular basis at the Engineering and Capital Programs Committee meetings. This incentive plan is part of the contract amendment approved by the Board in August 2006. The incentive payment to the contractor for the month of May 2009 is shown in [Attachment 1](#).

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

Policy

Submitted per request of the Board



Roy L. Wolfe
Manager, Corporate Resources

7/24/2009
Date



Jeffrey Kientlinger
General Manager

7/31/2009
Date

Attachment 1 – Inland Feeder Program Projected Cost/Expenditures and Incentive Plan Payments

Attachment 2 – Actual vs. Planned Cash Flow

BLA #6653

Inland Feeder Program Projected Cost/Expenditures (\$ in Millions)				
	Projected Cost To Complete (Updated June 2009)	Expenditures This Month (June 2009)	Expenditures To Date (June 2009)	% Complete Based on Expenditures (June 2009)
<u>Active Construction</u>				
Arrowhead Tunnels Const. Contract	\$ 397.0	\$ 4.8	\$ 359.2	90%
Construction Inspection and Support	\$ 58.0	\$ 1.0	\$ 53.9	93%
Subtotal, Active Construction	\$ 455.0	\$ 5.8	\$ 413.1	91%
<u>Other Components</u>				
Completed Projects	\$ 578.9	\$ 0.0	\$ 575.0	99%
Others (R/W, Env., Prog. Mgmt.)	\$ 112.3	\$ 0.3	\$ 108.8	97%
Subtotal, Other Components	\$ 691.2	\$ 0.3	\$ 683.8	99%
Expended To Date		\$ 6.1	\$ 1,096.9	92%
Subtotal, All Projects	\$ 1,146.2	← Projected Cost to Complete		
Remaining Budget	\$ 40.3			
Board-Authorized Budget	\$ 1,186.5	← Total Project Budget		

NOTE: Contractor invoices paid through June 2009 = 356.5M
 Overall completion = 36.3 of 44.2 miles (82%)

Inland Feeder Program – Arrowhead Tunnels Incentive Plan Payments				
	<u>East Tunnel</u>	<u>West Tunnel (1)</u>	<u>Total</u>	
June 2006 – Apr. 2009 (Previously Reported)	\$ 3,326,650	\$ 4,122,081	\$ 7,448,731	
May 2009 (3)	\$ 70,950	\$ 68,063	\$ 139,013	
TOTALS	\$ 3,397,600	\$ 4,190,144	\$ 7,587,744	(2)

(1): For Arrowhead West Tunnel, incentive program evaluation commenced in June 2006.
 (2): Percent of maximum possible combined incentive: 77% (70% Arrowhead East Tunnel, 83% Arrowhead West Tunnel)
 (3): Incentive Plan based on work performed during contractor monthly pay period from 4/26/09 to 5/25/09 (differs from progress in calendar month)

Arrowhead Tunnels Actual vs. Planned Cash Flow

