

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

January 11, 2005 Board Meeting

9-2

Subject

Appropriate \$7.89 million; and award a \$5.915 million construction contract to Mladen Buntich Construction Co., Inc. for the Yorba Linda Feeder Bypass Project (Approp. 15379)

Description

The Yorba Linda Feeder Bypass project is a component of the Orange County Basin Groundwater Conjunctive Use Program, which will allow the recharge of the Orange County Basin with replenishment water of lower total-dissolved-solids content. This replenishment water would enhance supply reliability and assist in reversing salt imbalance in the groundwater basin. Final design of the project was authorized by Metropolitan's Board in April 2003.

The existing Yorba Linda Feeder is one of two pipelines, which supply untreated water to the Robert B. Diemer Water Treatment Plant (Diemer plant). Yorba Linda Feeder flows may be either East Branch State Project water or blended State Project and Colorado River water. The proposed Yorba Linda Feeder Bypass project will allow Metropolitan to bypass the Diemer plant and deliver untreated water from the Yorba Linda Feeder into the East Orange County Feeder No. 1 to Anaheim Lake for groundwater recharge.

The Yorba Linda Feeder Bypass project includes construction of a tunnel shaft on the Diemer plant site, a short tunnel, and a pipeline extending from the Diemer plant to the Valley View Power Plant Penstock, which connects to the East Orange County Feeder No. 1. The project was advertised for bids on November 11, 2004. As shown in [Attachment 3](#), a total of three bids were received and opened under Specifications No. 1496. The low bid from Mladen Buntich Construction Co., Inc., in the amount of \$5.915 million, complies with the requirements of the specifications. The engineer's estimate prepared by the design consultant was \$5.3 million. For this project, Metropolitan requires Small Business Enterprise (SBE) participation of at least 20 percent of the total construction bid. Mladen Buntich Construction Co., Inc. is an SBE firm and thus achieves 100 percent participation.

This action awards a \$5.915 million construction contract to Mladen Buntich Construction Co., Inc. to construct the Yorba Linda Feeder Bypass project, and authorizes construction inspection and support, and environmental monitoring for the project. The anticipated cost of inspection and support is approximately 13 percent of the construction cost. The Engineering Services goal for inspection of projects with construction cost greater than \$3 million is 9 to 12 percent.

The total program estimate for the Yorba Linda Feeder Bypass Program that was included within the fiscal year 2004/05 Capital Investment Plan (CIP) was \$6.8 million. Since the development of the 2004/05 capital budget, a number of issues arose, which impacted program costs and accounts for the difference in the low bid amount and the engineer's estimate, including: (1) The scope and budget were originally prepared based on cut-and-cover construction to install the 55-inch diameter pipeline. Geotechnical analyses conducted for the Diemer Oxidation Retrofit Program and the Diemer plant's reliability studies identified that the steep south-facing slope below the Yorba Linda Feeder Pressure Control Structure is potentially unstable, requiring the pipeline to be lowered and placed in bedrock. Using conventional pipeline construction methods, trenching as deep as 50 feet below the potentially unstable slope would be required. During a constructability review of the consultant's design, an alternative approach of constructing a deep shaft and short tunnel was identified. The alternate approach considerably reduces the risk of slope instability during construction. As a result of this constructability review, the project was redesigned; (2) Major recent increases have occurred industry-wide in the price of construction

materials such as portland cement, steel, and other metals; and (3) A large volume of construction projects within California has compounded the competitiveness of bids. As a result of these issues, staff recommends revising the total program estimate from \$6.8 million to \$8.72 million.

The Yorba Linda Feeder Bypass project has been evaluated and recommended by Metropolitan's Capital Investment Plan Evaluation Team. See [Attachment 1](#) for the Detailed Report, [Attachment 2](#) for the Abstract of Bids, [Attachment 3](#) for the Financial Statement, and [Attachment 4](#) for the Location Map.

Policy

Metropolitan Water District Administrative Code Section 5108: Capital Project Appropriation

Metropolitan Water District Administrative Code Section 8113: Construction Contract Award

By Minute Item 45286, dated April 8, 2003, the Board gave authority to enter into the Orange County Basin Groundwater Conjunctive Use Program inclusive of the Yorba Linda Feeder Bypass project, and authorized final design of the project.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The environmental effects from the design, construction, and operation of the Yorba Linda Feeder Bypass project were evaluated in the Robert B. Diemer Filtration Plant Improvements Project Final Supplemental Environmental Impact Report (Final SEIR), which was certified by the Board on August 20, 2002. During that same meeting, the Board also approved the amended Findings of Fact (findings), the amended Mitigation Monitoring and Reporting Program (MMRP), the amended Statement of Overriding Considerations (SOC), and the proposed modifications to the originally approved Robert B. Diemer Filtration Plant Improvements Project. The present board action is solely based on the construction of the Yorba Linda Feeder Bypass and not on any changes to the approved project. Hence, the previous environmental documentation taken by the Board in conjunction with the proposed action fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act on the proposed action.

The CEQA determination is: Determine that the proposed actions have been previously addressed in the certified 2002 Final SEIR and in the related adopted documents (i.e., amended findings, amended SOC, and amended MMRP), and that no further environmental analysis or documentation is required.

CEQA determination for Option #2:

None required

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determination and

- a. Appropriate \$7.89 million; and
- b. Award a construction contract for \$5.915 million to Mladen Buntich Construction Co., Inc. for the Yorba Linda Feeder Bypass project.

Fiscal Impact: \$5.97 million of budgeted funds and \$1.92 million of unbudgeted funds under Approp. 15379.

Option #2

Do not award a contract for the Yorba Linda Feeder Bypass project, and re-advertise the project in an attempt to obtain more favorable bids.

Fiscal Impact: None. Re-bidding the project will delay the completion date.

Staff Recommendation

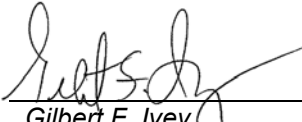
Option #1



Roy L. Wolfe
Manager, Corporate Resources

12/22/2004

Date



for Gilbert F. Ivey
Ronald R. Gastelum
Chief Executive Officer

12/23/2004

Date

Attachment 1 – Detailed Report

Attachment 2 – Abstract of Bids

Attachment 3 – Financial Statement

Attachment 4 – Location Map

BLA #2606

Detailed Report

Introduction

In April 2003, Metropolitan's Board authorized entering into an agreement for the Orange County Basin Groundwater Conjunctive Use Program. Construction of the Yorba Linda Feeder Bypass is a component of this Program. The April 2003 board action also authorized final design and all work in advance of a competitively bid contract for construction of the Yorba Linda Feeder Bypass.

The Orange County Basin Groundwater Conjunctive Use Program will allow Metropolitan to store up to 60,000 acre-feet of water within the Orange County Basin during wet years and to request production of up to 20,000 acre-feet per year for over-lying demand during dry, drought and emergency conditions. As of November 1, 2004, drilling of eight extraction wells and construction of seawater barrier improvements are in progress by Orange County Water District. Nearly 10,000 acre-feet of water have been stored in the Metropolitan account in the Orange County Basin.

Background

The Robert B. Diemer Water Treatment Plant (Diemer plant) was placed into service in 1963 with an initial capacity of 200 million gallons per day (mgd), and expanded in 1969 to a design capacity of 520 mgd. The plant delivers treated water to Orange County and areas of Metropolitan's Central Pool portion of the distribution system. The Diemer plant can receive water from two sources. One source is the Yorba Linda Feeder, which supplies either East Branch State project water from the La Verne Pipeline or blended State project water and Colorado River water from the Upper Feeder. The second source of water for the Diemer plant is the Lower Feeder, which supplies Colorado River water from Lake Mathews.

In April 2003, Metropolitan's Board authorized final design of the Yorba Linda Feeder Bypass project, which will allow Metropolitan to bypass the Diemer plant and deliver up to 120 cfs of untreated water from the Yorba Linda Feeder into the East Orange County Feeder No. 1 to Anaheim Lake for groundwater recharge. The project provides direct access to replenishment water of lower total-dissolved-solids content to assist in reversing the salt imbalance in the groundwater basin.

Project Description

The Yorba Linda Feeder Bypass project consists of approximately 1,580 feet of 55-inch diameter tunnel, vertical shaft, and pipeline; an acoustic flow meter; and two isolation valve/gate structures. The Yorba Linda Feeder Bypass will begin at the Yorba Linda Pressure Control Structure discharge channel on the Diemer plant site, continue southerly downslope, and connect to the Valley View Power Plant Penstock. The existing Valley View Power Plant Penstock will convey flows into the East Orange County Feeder No. 1.

The slope immediately south of the Yorba Linda Pressure Control Structure is steep and potentially unstable. Within this slope, the bypass line will be conveyed in a deep vertical shaft and tunnel to avoid the risk of slope instability during construction.

Bid Results and Business Outreach

As shown in Attachment 2, three bids were received and opened under Specifications No. 1496 for the Yorba Linda Feeder Bypass project. The low bid from Mladen Buntich Construction Co., Inc., in the amount of \$5.915 million, complies with the requirements of the specifications. The engineer's estimate was \$5.3 million. For this project, Metropolitan requires Small Business Enterprise (SBE) participation of at least 20 percent of the total construction bid. Mladen Buntich Construction Co., Inc. is an SBE firm and thus achieves 100 percent participation.

The low bid is higher than the engineer's estimate due to several factors: (1) An alternative approach of constructing a deep shaft and short tunnel to protect the site's slope stability; (2) Industry-wide increases in the cost of construction materials; and (3) Reduced competitiveness in the construction market due to the large volume of construction projects.

Cost Estimate

Attachment 3 shows the total requested funding of \$7.89 million to complete this project. Metropolitan staff will perform construction management and inspection for this project, while the design consultant, Camp Dresser and McKee, Inc. (CDM), will provide follow-up technical support during construction.

The engineering support will be performed under an existing professional services agreement. CDM was selected through a competitive process (Request for Qualifications 578) for engineering assistance with treatment plant improvement projects. Authority to enter into the agreement was approved by Metropolitan's Board in June 2003.

Specialized geotechnical support will be provided by Geopentech, Inc. and specialized biological and environmental monitoring will be provided by Jones and Stokes Associates, Inc. Support from both firms will be provided under existing professional services agreements.

Project Milestones

- February 2005 – Issue Notice to Proceed
- March 2006 – Complete construction

The Metropolitan Water District of Southern California
Abstract of Bids Received on December 9, 2004 at 2:00 P.M.
Specifications No. 1496
Yorba Linda Feeder Bypass

The contract consists of constructing approximately 1,580 linear feet of 55-inch diameter pipe and appurtenances, including excavation and construction of an approximate 460-foot long tunnel and 125-foot deep vertical shaft, connections to the existing Yorba Linda Control Structure and Valley View Power Plant Penstock, constructing an isolation valve and flow meter vault, performing site restoration, and other appurtenant work.

Engineer's Estimate: \$5,300,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE*
Mladen Buntich Construction Co., Inc., Upland, CA.	\$5,915,000	\$5,915,000	100%	Yes
Gantry Constructors, Inc., Clarkdale, AZ.	\$6,217,600	N/A	N/A	N/A
ARB Inc., Lake Forest, CA.	\$7,330,000	N/A	N/A	N/A

* SBE (Small Business Enterprise) participation set at 20 percent
N/A – Not Applicable

Financial Statement for Yorba Linda Feeder Bypass Program

A breakdown of Board Action No. 3 for Appropriation No. 15379 for the Yorba Linda Feeder Bypass is as follows:

	Previous Total Appropriated Amount (Apr. 2003)	Current Board Action No. 3 (Jan. 2005)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 220,000	\$ 0	\$ 220,000
Design and Specifications	100,000	97,000	197,000
Owner Costs (Program management, environmental monitoring)	80,000	201,000	281,000
Construction Inspection and Support	0	777,000	777,000
Metropolitan Force Construction	0	24,000	24,000
Materials and Supplies	5,000	5,000	10,000
Incidental Expenses	5,000	5,000	10,000
Professional/Technical Services (Engineering support during construction, geotechnical & specialty environmental monitoring)	418,000*	462,000	880,000
Equipment Use	2,000	5,000	7,000
Reimbursement of Service Connection	0	(66,000)**	(66,000)**
Contracts	0	5,915,000	5,915,000
Remaining Budget	0*	465,000	465,000
Total	\$ 830,000	\$7,890,000	\$ 8,720,000

* Includes reallocation of \$123,000 Remaining Budget to Professional/Technical Services for tunnel design

** MWDOC OC-28A service connection billing meter cost

Funding Request

Program Name:	Yorba Linda Feeder Bypass Program		
Source of Funds:	Revenue, Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15379	Board Action No.:	3
Requested Amount:	\$ 7,890,000	Capital Program No.:	15379-S
Total Appropriated Amount:	\$ 8,720,000	Capital Program Page No.:	E-67
Total Program Estimate:	\$ 8,720,000 ***	Program Goal:	S-Supply and Delivery Reliability

*** Revised from \$6.8 million contained in fiscal year 2004/05 capital budget.

