

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

July 12, 2005 Board Meeting

7-7

Subject

Appropriate \$890,000; and authorize (1) preliminary design of the Orange County Cross Feeder, and (2) final design and construction of the Coastal Junction Bypass (Approps. 15428, 15377)

Description

The south Orange County area of Metropolitan's distribution system receives potable water which primarily originates from the Robert B. Diemer Water Treatment Plant, located in Yorba Linda. Treated water is delivered through Metropolitan's Orange County Feeder (OCF), East Orange County Feeder No. 2 (EOCF2), and the Allen-McColloch Pipeline (AMP).

Metropolitan staff has worked with the Municipal Water District of Orange County (MWDOC) to address the need to increase the reliability of deliveries to the Diemer Service Area, given planned maintenance and rehabilitation activities and the future availability of State project water (SPW) supplies. Planned maintenance of the Diemer plant is performed regularly, requiring scheduled shutdowns. Major construction work is also planned under the Diemer Improvements Program and the Oxidation Retrofit Program (ORP) over the next few years, which will require a series of 3- to 7-day plant shutdowns. Because the Diemer plant is the primary source of treated water for south Orange County, shutdowns of any significant duration impact Metropolitan's ability to meet MWDOC demands. In addition, in order to meet resource management and water quality objectives, Metropolitan needs greater system flexibility to deliver higher blends of SPW to the Central Pool portion of the service area prior to the completion of the Diemer ORP, currently scheduled for 2010.

Metropolitan and MWDOC have evaluated alternatives to increase Metropolitan's operational flexibility, maximize use of SPW supplies, and minimize impacts during scheduled or emergency shutdowns. Two projects have been identified which meet these objectives. The first project, the Orange County Cross Feeder, will add a new pipeline to interconnect the Second Lower Feeder and the EOCF2. This interconnection will provide operational flexibility and reliability by augmenting and backing up the Diemer plant through the delivery of additional treated water from the Joseph Jensen Water Treatment Plant. The Orange County Cross Feeder will help maximize deliveries from the west branch of the State Water Project. This interconnection also fits within Metropolitan's long-range plans by providing an additional future delivery route into the "Central Pool" (Los Angeles, Orange, and Ventura Counties) once the Central Pool Augmentation (CPA) Program is completed. Construction of the Orange County Cross Feeder is scheduled for completion by early 2008, based on planned shutdowns during winter 2007/08.

The second project, the Coastal Junction Bypass, will construct a bypass around the existing Coastal Junction Pressure Control Structure, located in Irvine. This project will reduce the impacts of Diemer plant shutdowns by delivering treated water from the Jensen plant to the southernmost portions of the Diemer service area. This will be accomplished by constructing 24-inch pipeline connections at both ends of the Coastal Junction Pressure Control Structure, permitting a portable pump system to be installed during shutdowns, which may deliver up to 30 cfs to south Orange County. Construction of the Coastal Junction Bypass is scheduled for completion in spring 2006.

Orange County Cross Feeder Program (Approp. 15428)***Preliminary Design (\$545,000)***

The proposed Orange County Cross Feeder will be a 7-foot-diameter pipeline, extending approximately 1.5 to 3.5 miles east from the Second Lower Feeder to EOCF2. The pipeline will initially be capable of delivering up to 100 cfs of treated water from the Jensen plant to EOCF2. In the future, the Orange County Cross Feeder will be able to deliver up to 350 cfs from the CPA system to meet demands in the Central Pool portion of Metropolitan's system.

This action authorizes studies, preliminary design and preparation of environmental documentation for the Orange County Cross Feeder. Work will be performed by Metropolitan staff with support from specialty consultants for aerial mapping and geotechnical investigations. Staff will return to the Board at a later date for certification of environmental documentation and to authorize final design.

Actions and Milestones

December 2005 – Completion of preliminary design and environmental documentation

July 2006 – Completion of final design

March 2008 – Completion of construction

Conveyance and Distribution System Rehabilitation Program (Approp. 15377)***Coastal Junction Bypass Project - Design & Construction (\$345,000)***

The Coastal Junction Bypass Project will provide Metropolitan with the ability to deliver limited amounts of treated water from the Jensen plant to the southernmost portion of Orange County. This project will construct a bypass around the existing Coastal Junction Pressure Control Structure utilizing a 24-inch connection on either end of the structure in combination with a portable pump system and generator. The bypass will have a capacity of approximately 30 cfs. This project will provide additional operational flexibility during shutdowns and emergencies by adding another delivery route to the southernmost portion of Orange County.

This action authorizes final design and construction of Coastal Junction Bypass. Metropolitan staff will prepare the design and equipment specifications, and construction will be performed by Metropolitan forces.

Actions and Milestones

November 2005 - Completion of final design

April 2006 - Completion of construction

This action appropriates \$890,000 for the Orange County Cross Feeder and Coastal Junction Bypass Projects. Both projects have been evaluated and recommended by Metropolitan's Capital Investment Plan (CIP) Evaluation Team and funds have been included in the fiscal year 2005/2006 capital budget.

See [Attachment 1](#) for the Financial Statements, [Attachment 2](#) for the Location Map, and, [Attachment 3](#) for the potential Orange County Cross Feeder Pipeline alignments.

Policy

Metropolitan Water District Administrative Code Section 5108: Capital Project Appropriation

California Environmental Quality Act (CEQA)

CEQA determinations for Option #1:

Orange County Cross Feeder

The proposed actions are exempt under the provisions of CEQA and the State CEQA Guidelines, since they involve only preliminary design and environmental documentation for possible future actions, as well as basic data collection and resource evaluation activities which do not result in a serious or major disturbance to an

environmental resource. These activities may be strictly for information gathering purposes, or as part of a study leading to actions which a public agency has not yet approved, adopted, or funded. Accordingly, these proposed actions qualify under a categorical exemption (Class 6, Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed actions qualify under a categorical exemption (Class 6, Section 15306 of the State CEQA Guidelines).

Coastal Junction Bypass

The proposed actions are categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed projects involve the funding and the minor alterations of existing private or public facilities, along with the construction of minor appurtenant structures, with minor modifications in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees. These activities would result in negligible expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed actions qualify under Class 1, Class 3, and Class 4 Categorical Exemptions (Sections 15301, 15303, and 15304 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed actions qualify under three Categorical Exemptions (Class 1, Section 15301; Class 3, Section 15303; and Class 4, Section 15304 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determinations and

- a. Appropriate \$890,000 in budgeted funds;
- b. Authorize preliminary design of the Orange County Cross Feeder; and
- c. Authorize final design and construction of the Coastal Junction Bypass.

Fiscal Impact: \$890,000 of budgeted capital funds under the following appropriations:

- Appropriation 15428 (Orange County Cross Feeder Program): \$545,000
- Appropriation 15377 (Conveyance and Distribution System Rehabilitation Program): \$345,000

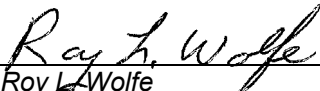
Option #2

Do not authorize the work described in this letter. This option foregoes an opportunity to improve Metropolitan's operational flexibility and to minimize impacts to member agencies during scheduled or emergency shutdowns.

Fiscal Impact: None

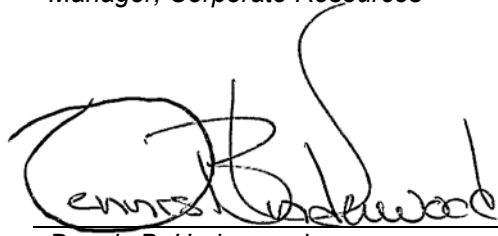
Staff Recommendation

Option #1



Roy L. Wolfe
Manager, Corporate Resources

6/20/2005
Date



Dennis B. Underwood
CEO/General Manager

6/21/2005
Date

Attachment 1 – Financial Statements

Attachment 2 – Location Map

Attachment 3 – Potential Orange County Cross Feeder Pipeline Alignments

BLA #3748

Financial Statement for Orange County Cross Feeder Project

A breakdown of Board Action No. 1 for Approp. 15428 for preliminary design of the Orange County Cross Feeder is as follows:

	Board Action No. 1 (July 2005)	New Total Appropriated Amount
Labor		
Studies and Preliminary Design	\$237,000	\$237,000
Owner Costs (Program management, permitting, environmental documentation)	160,000	160,000
Construction Inspection and Support	0	0
Metropolitan Force Construction	0	0
Materials and Supplies	0	0
Incidental Expenses	0	0
Operating Equipment	0	0
Professional/Technical Services	75,000	75,000
Contracts	0	0
Remaining Budget	73,000	73,000
Total	\$545,000	\$545,000

Funding Request

Program Name:	Orange County Cross Feeder		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15428	Board Action No.:	1
Requested Amount:	\$ 545,000	Capital Program No.:	05063-S
Total Appropriated Amount:	\$ 545,000	Capital Program Page No.:	E-51
Total Program Estimate:	\$ 30,712,000	Project Goal:	I - Infrastructure Reliability

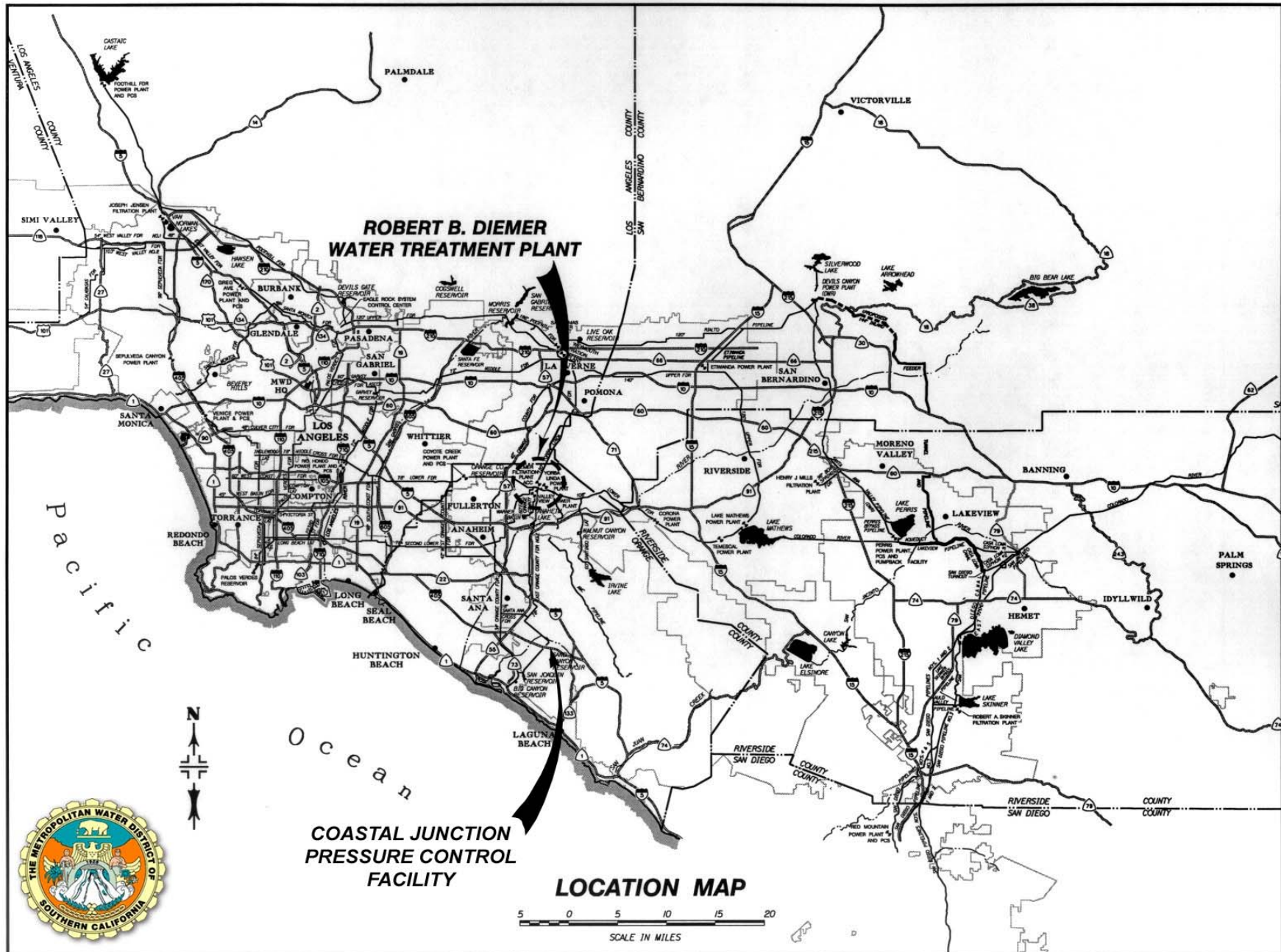
Financial Statement for Conveyance and Distribution System Rehabilitation Program

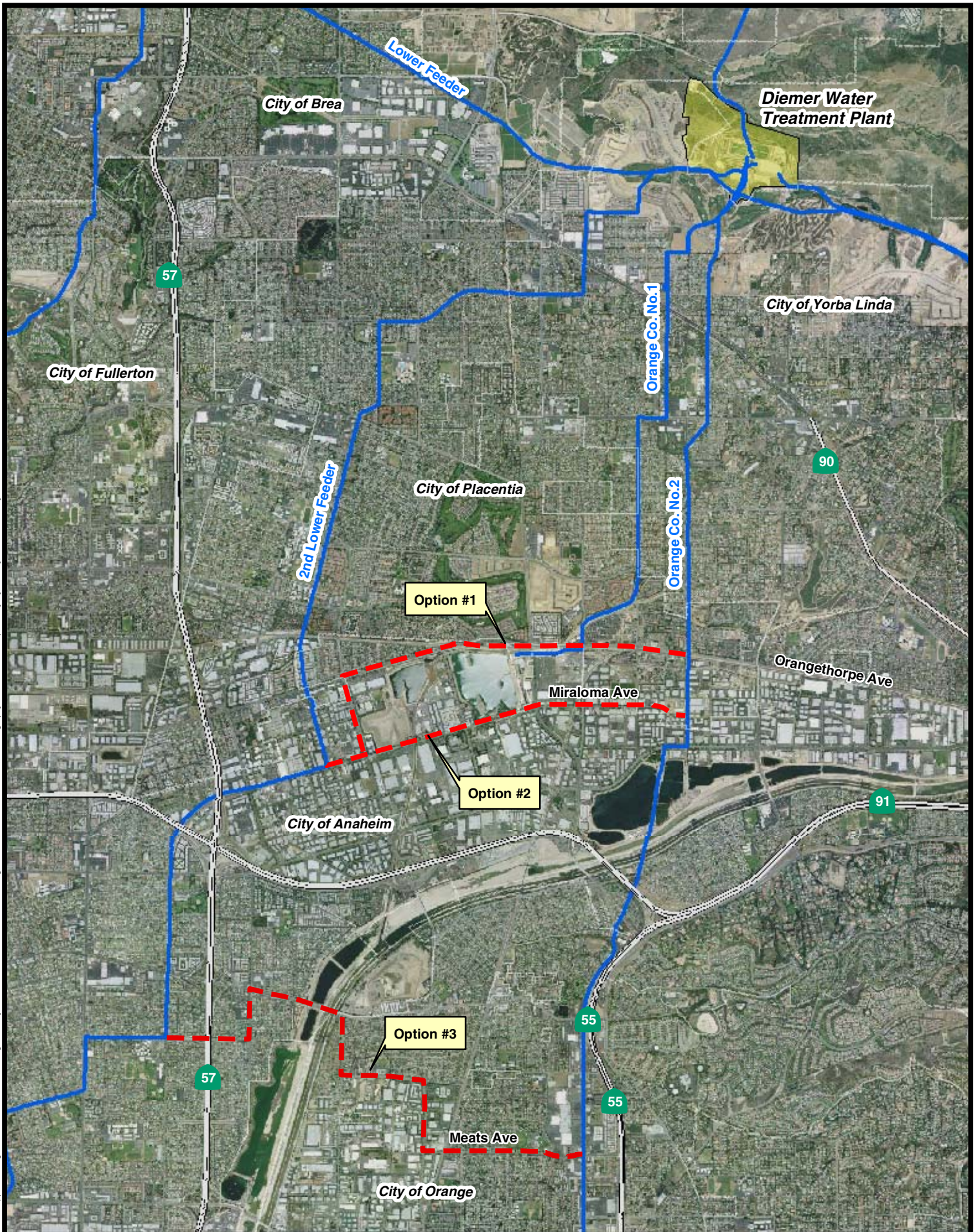
A breakdown of Board Action No. 11 for Approp. 15377 for final design and construction of the Coastal Junction Bypass within the Conveyance and Distribution System Rehabilitation Program:

	Previous Total Appropriated Amount (Feb 2005)	Current Board Action No. 11 (July 2005)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 2,404,000	\$ 25,200	\$ 2,429,200
Final Design	1,943,420	36,500	1,979,920
Owner Costs (Program management, permitting)	2,190,500	36,900	2,227,400
Construction Inspection and Support	754,300	0	754,300
Metropolitan Force Construction	7,684,250	45,580	7,729,830
Materials and Supplies	3,462,825	142,250	3,605,075
Incidental Expenses	874,500	1,120	875,620
Operating Equipment	697,000	3,350	700,350
Professional/Technical Services	569,000	7,500	576,500
Contracts	6,461,800	0	6,461,800
Remaining Budget	2,961,105	46,600	3,007,705
Total	\$ 30,002,700	\$345,000	\$30,347,700

Funding Request

Program Name:	Distribution System Rehabilitation Program		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15377	Board Action No.:	11
Requested Amount:	\$ 345,000	Capital Program No.:	15377-I
Total Appropriated Amount:	\$ 30,347,700	Capital Program Page No.:	E-35
Total Program Estimate:	\$ 43,540,000	Project Goal:	R - Reliability





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