

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

July 8, 2008 Board Meeting

8-2

Subject

Appropriate \$247 million; award a \$188,080,588 contract to Shimmick Construction Co. Inc./Obayashi Corp., A Joint Venture, for the Diemer Oxidation Retrofit Program; authorize amendments to existing agreements with CDM, KDG, and EcoSystems Restoration Associates; authorize agreement with CH2M Hill; award a \$370,000 procurement contract to Systems Integrated, Inc. for control system equipment; and authorize adjustment of appropriations for the Diemer ORP and Diemer Improvements Programs (Approps. 15389 and 15380)

Description

This letter describes three major actions: (1) award of contracts to construct ozonation facilities and procure control systems equipment, and authorization of professional services to support the ozone facilities construction activities; (2) authorization of four previously approved Diemer Improvements Program projects to be constructed by the Diemer ozone contractor; and (3) adjustment of appropriations for the previously completed Diemer Oxidation Retrofit Program (ORP) Site Preparation work to reflect final construction costs incurred which are attributable to the Diemer Improvements Program.

The Diemer ORP is categorized as a Water Quality project, while elements of the contract are categorized as Rehabilitation and Replacement work within Metropolitan's Capital Investment Plan (CIP). All work is budgeted within the fiscal year 2008/09 CIP.

The work included in this construction contract has been budgeted within two Diemer plant capital programs: the Diemer ORP and the Diemer Improvements Program. The total requested funding of \$247 million will be apportioned between the two programs. The apportionment of \$231.5 million (93.7 percent) to the Diemer ORP and \$15.5 million (6.3 percent) to the Diemer Improvements Program (see [Attachment 1](#)) is based on the breakdown of work developed as part of the engineer's estimate.

Background

The Diemer plant was placed into service in 1963 with an initial treatment capacity of 200 million gallons per day (mgd). In 1969, the plant was expanded to its present capacity of 520 mgd. The plant delivers a blend of waters from the Colorado River and State Water Project (SWP) to Orange County and to the Central Pool portion of the distribution system.

The Diemer plant has a major construction program underway, involving multiple projects and multiple construction contracts. Due to the constrained nature of the site, the Diemer construction program includes a series of contracts which have been designed to minimize overlap of contractors, to complete key elements of work within shutdown windows, to minimize impacts to plant operations, and to increase construction efficiency. Description of the three major actions of this letter are given below.

1. Diemer ORP Appropriation – Ozonation Facilities Construction (\$231.5 million)

In April 2005, Metropolitan's Board authorized final design of the Diemer ORP, which will add ozonation as the primary disinfection process at the Diemer plant. The addition of ozone at each of Metropolitan's treatment plants will remove blend restrictions and substantially lower disinfection by-product levels for compliance with both Stage 1 and Stage 2 of the U.S. Environmental Protection Agency's Disinfectants/Disinfection By-Products Rule. Use of ozone will also enhance Metropolitan's ability to treat water with variable source-water quality, and provide critical operational flexibility to meet varying treatment challenges resulting from periodic occurrences

such as drought and SWP pumping limitations. Further, ozonation will provide the capability to control taste-and-odor causing compounds that may be present from time to time.

Execution of the Diemer ORP is being staged via multiple construction contracts and an ozone equipment procurement contract. The Diemer plant is located on the top of a hill in Yorba Linda near Chino Hills State Park, with few remaining areas that are suitable for new facility construction. Consequently, portions of the existing plant site required remediation and several facilities have been relocated on-site to accommodate the new ozonation facilities. Due to hydraulic constraints, the ozone contactors will be located at the southwest portion of the main plant level, above a south-facing slope (see [Attachment 2](#)). This site required relocation of the former plant and vehicle maintenance facilities, and stabilization of the slope.

There are three remaining construction contracts that are related to the Diemer ORP. The first, which will construct the main ozonation facilities, is the subject of this action. The second will relocate the plant's potable water pump station alongside the main plant entrance road and is planned to be awarded in June 2009. Lastly, a "wrap-up" contract is planned which will address all remaining work under the ORP, such as final site paving. This latter contract is planned to be awarded in early 2011.

Construction Contract Award

Specifications No. 1500 for the Robert B. Diemer Water Treatment Plant Oxidation Retrofit Program was advertised for bids on March 6, 2008. The project consists of constructing the Ozone Generation Building, ozone contactors, contactor inlet and outlet conduits, contactor rejection tunnel, LOX storage and feed system, Phase 2 of the chemical feed facilities, the plant electrical switchgear and emergency generator buildings, large-diameter yard piping and conduits; installing flow meters; replacing used washwater pumps; adding and modifying plant utilities and controls; performing demolition, grading, and paving; completing tie-ins to existing facilities; placing the landscaping; and installing and commissioning the ozone equipment furnished by Metropolitan. As shown in [Attachment 3](#), five bids were received and opened on June 6, 2008. The low bid from Shimmick/Obayashi, in the amount of \$188,080,588, complies with the requirements of the specifications. The four higher bids ranged from approximately \$191.8 million to \$215.5 million. The engineer's estimate was \$211 million. For this contract, Metropolitan has established a Small Business Enterprise (SBE) participation level of at least 18 percent of the total bid amount. Shimmick/Obayashi has committed to meet this level of participation. Shimmick/Obayashi is the contractor constructing the Skinner ORP.

This action appropriates \$247 million in budgeted funds and awards a \$188,080,588 contract to Shimmick/Obayashi to construct the Diemer ORP project. In addition to the amount of the contract, the appropriated funds include (see [Attachment 1](#)): \$370,000 for procurement of SCADA equipment; \$5.3 million for Metropolitan force construction; \$590,000 for installation of security-related equipment; \$24.82 million for construction inspection and support; \$14.59 million for all other staff and consultant project support (see breakdown below); and \$13.25 million for remaining budget. Metropolitan force construction includes installation of Remote Terminal Units; modification of the plant's Supervisory Control and Data Acquisition (SCADA) system to interface with the new ozone process control system; shutdown support; equipment operation during startup; and commissioning of the ozone system.

Metropolitan staff will perform construction inspection of the contract. Field administrative support is recommended to be performed by CH2M Hill under a new agreement, as discussed below. For this project, the anticipated cost of inspection and support is approximately 12 percent of the total construction cost. Engineering Services' goal for inspection of projects with construction cost greater than \$3 million is 9 to 12 percent.

Project support activities include: project management; environmental monitoring; process hazard analysis; start-up and performance testing; Department of Safety of Dams (DSOD) reporting and coordination; and technical support by Metropolitan staff and by the design consultant, Camp Dresser & McKee Inc. (CDM), as discussed below. Project controls services are recommended to be provided by KDG Development & Construction Consulting (KDG), and environmental monitoring is recommended to be performed by EcoSystems Restoration Associates, both under existing agreements. Ozone system start-up services and performance testing are recommended to be performed by Process Applications under a new agreement. These professional services agreements are discussed below.

Following is a breakdown of projected costs for the \$14.592 million needed for project support activities:

Staff and Consultant Project Support Activities

Support Activity	Service Primarily Provided by:	Projected Cost
Project Management (Includes oversight of all staff and consultant work, and construction activities; permitting and regulatory activities; public outreach; and plant interface)	Metropolitan	\$ 2,435,000
Construction Contract Administration	Metropolitan	1,050,000
Project Controls	KDG	650,000
Environmental Monitoring	EcoSystems Restoration Assoc.	501,000
Technical Support – Design Consultant (Respond to RFIs, review submittals, on-site field engineering, design changes)	CDM	6,150,000
Technical Support – Metropolitan (Review consultant work; respond to RFIs and review submittals for Metropolitan-designed elements; on-site field engineering)	Metropolitan	3,656,000
Geotechnical Engineering	GeoPentech	100,000
Ozone System Support	Process Applications, Inc.	50,000
Total		\$ 14,592,000

Professional Services Agreements

To most efficiently execute the Diemer ORP project, staff recommends that several specialty consultants provide assistance in the areas of technical engineering, project controls support, environmental mitigation monitoring, field administrative support, and ozone system start-up services and performance testing. Utilization of professional consulting firms to perform this work is consistent with the Corporate Resources Group staffing plan as incorporated in the fiscal year 2008/09 budget. These agreements will extend through completion of construction and ozone system start-up in mid-2012.

Technical Engineering Support – Amendment to Existing Agreement (CDM)

CDM and its subconsultants prepared the final design of the Diemer ozonation facilities. As the engineer of record, CDM is recommended to provide technical engineering support during construction. These activities will include review of submittals received from the contractor, responding to requests for information, and advising inspection staff on technical issues as they may arise. CDM was selected through a competitive process (Request for Qualifications No. 719), and the design work was performed under a board-authorized agreement. Amendment of the existing CDM agreement is consistent with the agreement's scope of work and with the planned approach for project implementation. For this agreement, Metropolitan has established an SBE participation level of 15 percent.

This action authorizes an increase of \$6.15 million to the existing agreement with CDM, for a new not-to-exceed total of \$19.58 million, to provide technical support during construction of the Diemer ORP project.

Project Controls Support – Amendment to Existing Agreement (KDG)

To successfully manage capital projects, various project controls efforts are undertaken to monitor budget and schedule. Specific tasks include assistance to project managers in cost monitoring; developing and maintaining

project schedules; tracking, monitoring and preparing project status reports; and control of the voluminous construction documents. KDG was selected through a competitive process (Request for Qualifications No. 661) to provide project controls support services for the ORP, and is recommended to continue this support during construction. Amendment of the existing KDG agreement is consistent with the agreement's scope of work and with the planned approach for projects implementation. KDG is an SBE firm and thus achieves 100 percent SBE participation.

This action authorizes an increase of \$650,000 to the existing agreement with KDG, for a new not-to-exceed total of \$2.4 million, to provide project controls support during construction of the Diemer ORP.

Environmental Monitoring – Amendment to Existing Agreement (EcoSystems Restoration Associates)

EcoSystems Restoration Associates (ERA) prepared the Draft Environmental Impact Report (EIR), Supplemental EIR, and Subsequent EIR for the Diemer ORP project, and is recommended to provide follow-up environmental monitoring services during construction. This project's environmental documentation and various regulatory permits require that Metropolitan implement, monitor, and report on numerous mitigation measures. The follow-up environmental services include: monitoring of general construction activities for environmental mitigation measures; providing technical expertise on air quality, biology, cultural resources, noise, traffic, water quality, and plant restoration issues; and reporting on the monitoring program as required for compliance with the California Environmental Quality Act. ERA was selected through a competitive process (Request for Qualifications No. 732), and its environmental activities were performed under a board-authorized agreement. Amendment of the existing ERA agreement is consistent with the agreement's scope of work and with the planned approach for project implementation. For this agreement, Metropolitan has established an SBE participation level of 20 percent.

This action authorizes an increase of \$500,000 to the existing agreement with EcoSystems Restoration Associates, for a new not-to-exceed total of \$2.3 million, to provide environmental monitoring support during construction of the Diemer ORP project.

Field Administrative Support for Construction Inspection – New Agreement (CH2M Hill)

To successfully manage a construction project, the construction management team and inspectors rely on field administrative staff to provide broad construction-related administrative support. The services are accounted for under the \$24.82 million for construction inspection and support and include: review and analysis of contractor-proposed construction schedules; review of contractor-prepared cost quotes for contract changes, disputed work and claims; preparation of independent cost estimates for the purpose of negotiating settlements with the contractor; preparation and control of documents and memoranda, submittals, contractor requests for information, and inspection reports; and administrative and clerical office assistance. These services are recommended to be performed by CH2M Hill under a new professional services agreement. CH2M Hill was selected through a competitive process via Request for Qualifications No. 826. For this agreement, Metropolitan has established an SBE participation level of 20 percent.

This action authorizes a professional services agreement with CH2M Hill, in an amount not to exceed \$2.25 million, to provide field administrative support during construction of the Diemer ORP project.

Ozone System Start-Up Services and Performance Testing – New Agreement (Process Applications) – No Action Required

To ensure that the Diemer ozone generation equipment meets the specified ozone production and energy efficiency when in operation, the equipment procurement contract states that Metropolitan will provide an independent testing representative to supervise the equipment supplier's ozone performance testing. Process Applications Inc. has been continuously engaged in this specialized field since 1983, has extensive and continuous experience with testing large capacity ozone systems, and has provided similar start-up and testing services for the ozone generation equipment at Metropolitan's Mills and Jensen ORP facilities. Staff has identified two firms with experience in this specialized field and has concluded that only Process Applications has the experience and expertise to provide these services for an ozone system of the complexity and capacity of the Diemer system. As a result, staff recommends that Process Applications provide ozone system start-up and

performance testing services for the Diemer ORP. Since the estimated amount of the agreement is \$50,000, this agreement will be awarded by the General Manager under his Administrative Code authority. Process Applications is an SBE firm and thus achieves 100 percent SBE participation.

Security System Installation – Existing Agreement (Johnson Controls) – No Action Required

New security systems within the Diemer plant are needed to monitor the ORP facilities to protect them from potential security threats. Security features recommended for the new ozonation facilities include access controls and surveillance equipment, such as card readers, door contacts and monitors; infrared motion detectors; and cameras. These features are consistent with security systems planned or in place at other Metropolitan facilities. In July 2007, Metropolitan's Board authorized a master agreement with Johnson Controls to design, furnish, and install physical security systems for capital projects on an as-needed basis. All funding for the security system installation work is to be provided under individually budgeted and appropriated capital programs. As a result, \$590,000 has been included within the present action to fund the installation of security system equipment.

Design and installation of security-related equipment will be performed by Johnson Controls under its new five-year master agreement, and is consistent with Metropolitan's long-term strategic plan to enhance safety and security of employees, the public, and Metropolitan's infrastructure. Due to the specialized and proprietary nature of the equipment furnished under this contract, Metropolitan did not establish an SBE participation level for this work. No amendment to the existing Johnson Controls agreement is required.

SCADA System Equipment – Award of Procurement Contract

Systems Integrated was selected in a competitive bidding process (Specifications No. 1207) to replace Metropolitan's aging control systems, and was initially awarded a contract in November 1994. The scope of this contract was to replace obsolete equipment purchased in the 1970s, and to accommodate system growth and expansion of treatment facilities. This procurement provided commonality of computer-based controls with the previous control systems. As new facilities come on-line, Metropolitan's plan has been for these facilities to integrate into the Systems Integrated control system. The Diemer ORP facilities require new control system equipment for routine process control, alarms, and reporting. In order to provide fully integrated and operational facilities, staff recommends procurement of eight Remote Terminal Units and associated support equipment from Systems Integrated. A procurement contract with Systems Integrated in the amount of \$370,000 is recommended for the Diemer ORP. This equipment will be delivered to the ORP construction contractor for installation under that contract. Due to the specialized and proprietary nature of the equipment furnished under this contract, Metropolitan did not establish an SBE participation level for this work.

This action awards a \$370,000 procurement contract to Systems Integrated for SCADA equipment for the Diemer ORP.

2. Diemer Improvements Program Appropriation – Construction (\$15.5 million)

Staff combined the Diemer ozonation facilities construction work and four Diemer Improvements Program projects into one construction contract (Specifications No. 1500) due to their overlapping construction schedules and common locations of some facilities. Based on the anticipated work breakdown from the engineer's estimate, the \$15,500,000 (of the \$247 million requested funding) for the four rehabilitation projects has been allocated as follows:

- Installation of a new Yorba Linda Feeder flow meter and return washwater flow meter, in order to accurately measure flow into the Diemer plant for chemical feed dosing; (\$822,000).
- Replacement and upgrade of pumps at the Used Washwater Pump Stations to increase reliability and energy efficiency; (\$1,097,000).
- Improvements to the plant's electrical power system to provide improved reliability through replacement of outdated and worn-out equipment; (\$12,209,000).
- Partial repaving of the plant road network to repair pavement damaged from years of normal use and of heavy construction activities; (\$1,372,000).

3. Adjustment of Appropriations – Diemer ORP and Diemer Improvements Program (No New Funds Required)

In April 2006, Metropolitan’s Board appropriated \$86.8 million under the Diemer ORP Program (Approp. 15389) and awarded a \$70,516,500 construction contract for ORP site preparation activities. Construction was completed in May 2008. The contractor excavated approximately 385,000 cubic yards of south-facing slope and placed approximately 190,000 cubic yards of roller-compacted concrete to provide a seismically stable foundation for the ozone contactors, the Ozone Generation Building, and the plant inlet conduit. The contractor also relocated a portion of the plant’s Lower Feeder inlet conduit to a new alignment with firm bedding, and stabilized the slope below the Yorba Linda Feeder inlet conduit. This work to enhance reliability of the Lower Feeder and Yorba Linda Feeder at the Diemer site is budgeted within Metropolitan’s CIP under the Diemer Improvements Program. Since construction has now been completed and final costs are available, staff recommends that costs associated with the Lower Feeder relocation and Yorba Linda Feeder slope stabilization (\$27,625,600) be transferred from the Diemer ORP to the Diemer Improvements Program at this time. The amounts are based on the contractor’s breakdown of work for progress payments. The recommended adjustments to the appropriations are shown below. No additional funds are required, as all funds have been previously appropriated.

Proposed Adjustment of Previously Appropriated Funds for Diemer ORP Site Preparation Activities

	Diemer ORP (Approp. 15389)	Diemer Improvements Program (Approp. 15380)	Total
Date of Last Appropriation	April 2006	May 2008	
Current Appropriated Amount	\$157,378,000	\$41,731,000	\$199,109,000
Adjustment	(\$27,625,600)	\$27,625,600	\$0
New Total Appropriated Amount	\$129,752,400	\$69,356,600	\$199,109,000

Summary

This action appropriates \$247 million in budgeted funds; awards a \$188,080,588 contract to Shimmick/Obayashi to construct the Diemer ORP project; authorizes amendments to existing agreements with CDM, KDG and EcoSystems Restoration Associates; authorizes a new agreement with CH2M Hill; awards a \$370,000 procurement contract to Systems Integrated for control system equipment; and authorizes an adjustment of previously appropriated funds between the Diemer ORP and the Diemer Improvements Program.

The Diemer ORP and the four Diemer Improvements Program projects have been evaluated and recommended by Metropolitan’s CIP Evaluation Team, and funds have been included in the fiscal year 2008/09 capital budget. These funds are included under two capital programs within Metropolitan’s CIP. See [Attachment 4](#) for the two Financial Statements, and [Attachment 2](#) for the Location Maps.

This project is consistent with Metropolitan’s goals for sustainability by enhancing the reliability of the existing treatment, conveyance and distribution system, in order to maintain reliable water deliveries in the future.

Project Milestones

Early 2012 – Completion of Diemer ORP construction

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

California Environmental Quality Act (CEQA)

CEQA determinations for Options #1 and #2:

The environmental effects from the funding, design, procurement of equipment, construction and operation of the Diemer Oxidation Retrofit Program (Program) were evaluated in the Robert B. Diemer Treatment Plant Improvements Project Environmental Impact Report (EIR), Supplemental EIR, and Subsequent EIR, certified by the Board on February 13, 2001, August 20, 2002, and April 11, 2006, respectively. During these three board meetings, the Board also approved the Findings of Fact (findings), the Statement of Overriding Considerations (SOC), and the Mitigation Monitoring and Reporting Program (MMRP) for the Diemer Improvements Project EIR, Supplemental EIR, and Subsequent EIR. The current board action is to appropriate budgeted funds and award a construction contract, and amend and award construction administration contracts for the Program, and does not propose any significant changes to the approved project itself. Therefore, the previous environmental documentation acted on by the Board in conjunction with the proposed action fully complies with CEQA and the State CEQA Guidelines. Accordingly, no additional CEQA review or documentation is required except as noted in the next paragraphs.

During final design, staff determined that minor modifications needed to be made to the Program. These minor modifications included modified construction techniques (primarily associated with seismic issues), modified placement of structures on site, and minor Program additions and schedule changes. These modifications will not result in any new significant effects or any substantial increase in the severity of any significant effects previously identified in the EIRs prepared for this project.

CEQA and the State CEQA Guidelines require the preparation of an addendum to a previously certified EIR if changes or additions are necessary, but none of the conditions described in Section 15162 of the State CEQA Guidelines calling for the preparation of a subsequent EIR have occurred (Section 15164 of the State CEQA Guidelines). Since none of the proposed modifications would result in any new significant effects or any substantial increase in the severity of any significant effects identified in the Final EIRs prepared for this project, an addendum is the most appropriate means of documenting the proposed changes to the project. Accordingly, Addendum No. 3 to the Final Subsequent EIR was prepared in May 2008, a copy of which is included as [Attachment 5](#).

The CEQA determinations are: (1) Determine that the potential environmental effects associated with the design, construction, and operation of the Program were addressed previously in the Final EIRs, findings, SOCs, and MMRPs certified and/or adopted by the Board on February 13, 2001, August 20, 2002, and April 11, 2006, respectively. (2) Certify that Addendum No. 3 was prepared in compliance with CEQA and the State CEQA Guidelines; that Addendum No. 3 reflects Metropolitan's independent judgment and analysis; that the Board has reviewed and considered the information contained in Addendum No. 3 and the Final EIRs; and that based on such review and consideration, the Board finds that there is no substantial evidence that the proposed modifications to the previously approved Program will create any new significant impacts or substantially increase the severity of any previously identified significant effects.

CEQA determination for Option #3:

None required

Board Options

Option #1

Adopt the CEQA determinations and

- a. Appropriate \$247 million in budgeted funds;
- b. Award a \$188,080,588 contract to Shimmick/Obayashi to construct the Diemer ORP project;
- c. Authorize an increase of \$6.15 million to the existing agreement with CDM, for a new not-to-exceed total of \$19.58 million;
- d. Authorize an increase of \$650,000 to the existing agreement with KDG, for a new not-to-exceed total of \$2.4 million;
- e. Authorize an increase of \$501,000 to the existing agreement with EcoSystems Restoration Associates, for a new not-to-exceed total of \$2.3 million;
- f. Authorize an agreement with CH2M Hill in an amount not to exceed \$2.25 million;
- g. Award a contract to Systems Integrated for procurement of control system equipment for a not-to-exceed total of \$370,000; and
- h. Transfer \$27,625,600 from the Diemer ORP appropriation to the Diemer Improvements Program.

Fiscal Impact: \$231.5 million of budgeted funds under Approp. 15389 and \$15.5 million of budgeted funds under Approp. 15380.

Business Analysis: Completion of the Diemer ORP will remove blend restrictions and enhance the plant's ability to treat water with variable source water quality.

Option #2

Adopt the CEQA determinations and

- a. Do not award the construction contract and re-advertise in an attempt to receive more favorable bids;
- b. Do not authorize the professional services agreements;
- c. Do not award the SCADA procurement contract; and
- d. Transfer \$27,625,600 from the Diemer ORP appropriation to the Diemer Improvements Program.

Fiscal Impact: None

Business Analysis: This option may or may not result in more favorable bids, and would delay completion of the ORP.

Option #3

- a. Do not proceed with ozonation facilities at the Diemer plant; and
- b. Do not transfer funds from the Diemer ORP appropriation to the Diemer Improvements Program.

Fiscal Impact: None

Business Analysis: Under this option, chlorine would continue to be used as the primary disinfectant at the Diemer plant. Capacity and blend restrictions would remain in effect in order to meet water quality regulations. Metropolitan would also forego an opportunity to have greater operational flexibility to treat water with variable source-water quality in which taste and odor events will periodically occur.

Staff Recommendation

Option #1



Roy L. Wolfe
Manager, Corporate Resources

6/23/2008

Date



Jeffrey Kightlinger
General Manager

6/24/2008

Date

Attachment 1 – Appropriation Apportionment

Attachment 2 – Location Maps

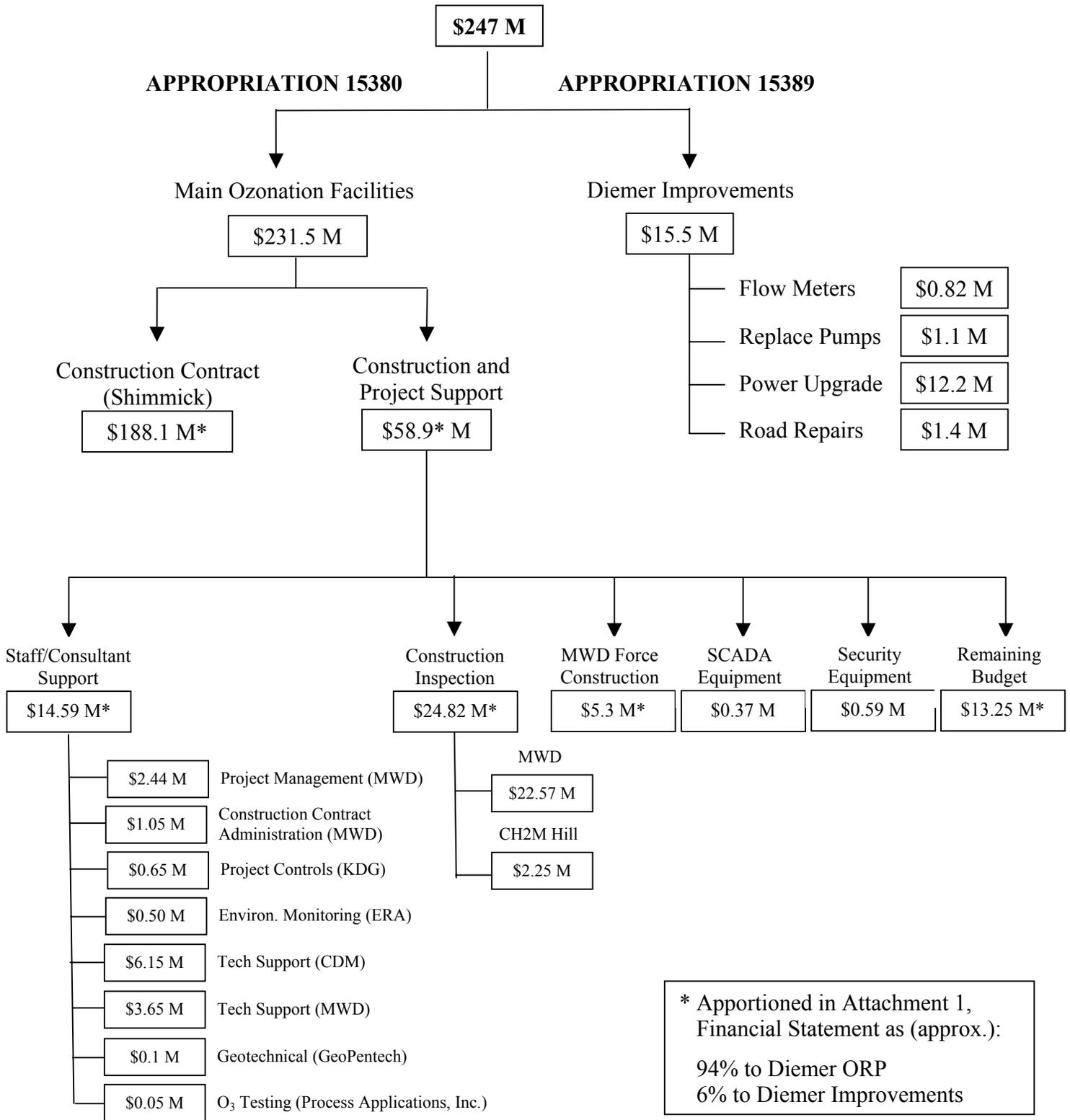
Attachment 3 – Abstract of Bids

Attachment 4 – Financial Statements

Attachment 5 – Addendum No. 3 to Final Subsequent EIR

BLA #6073

TOTAL APPROPRIATION



* Apportioned in Attachment 1, Financial Statement as (approx.):
 94% to Diemer ORP
 6% to Diemer Improvements

KEY

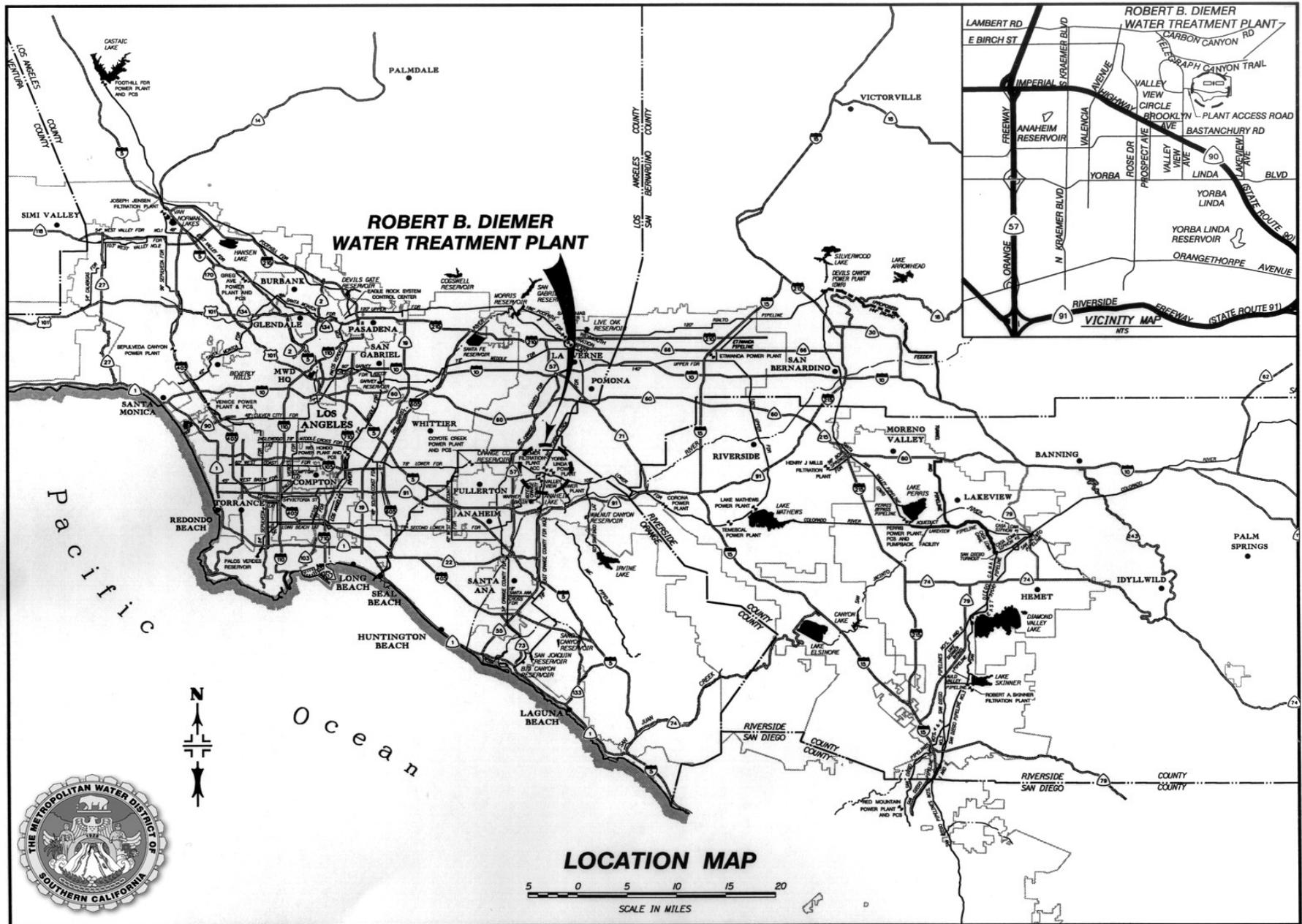
MWD = Metropolitan

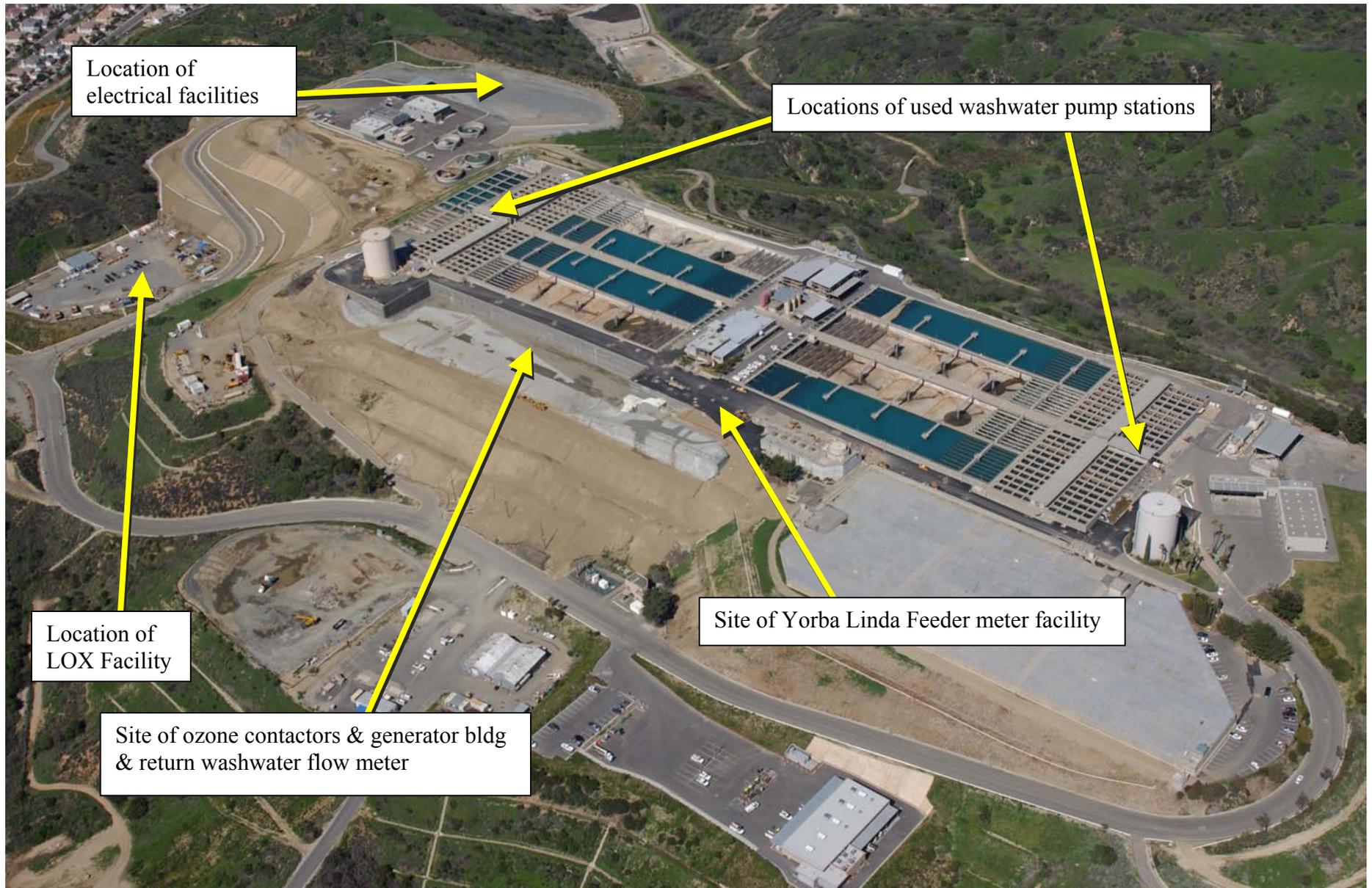
KDG = KDG Development and Construction Consulting

ERA = EcoSystems Restoration Associates

CDM = Camp Dresser & McKee Inc.

Shimmick = Shimmick Construction Co. Inc./Obayashi Corp.,
 A Joint Venture





The Metropolitan Water District of Southern California

Abstract of Bids Received on June 6 at 2:00 P.M.

Specifications No. 1500

**Robert B. Diemer Water Treatment Plant
Oxidation Retrofit Program**

The project consists of adding an oxygen/ozone system to the Diemer plant. The work includes constructing buildings and ozone contactors, LOX facilities, chemical storage and feed facilities, electrical switchgear building, yard conduits and piping; modifying plant utilities; testing and commissioning; and installation of Metropolitan-furnished ozone equipment.

Engineer's Estimate: \$211,000,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE*
Shimmick Construction Co., Inc./Obayashi Corporation, A Joint Venture, Oakland, CA	\$ 188,080,588	\$34,611,000	18.40%	Yes
Kiewit/Mass, A Joint Venture, Santa Fe Springs, CA	\$ 191,846,000	N/A	N/A	N/A
J.F. Shea Construction, Inc., Walnut, CA	\$ 198,390,326	N/A	N/A	N/A
Tutor-Saliba Corporation, Sylmar, CA	\$ 201,877,000	N/A	N/A	N/A
J.R. Filanc Construction Company, Inc., Escondido, CA	\$ 215,495,000	N/A	N/A	N/A

*SBE (Small Business Enterprise) participation set at 18 percent

Financial Statement for Diemer Oxidation Retrofit Program

A breakdown of Board Action No. 10 for Appropriation No. 15389 is as follows:

	Previous Total Appropriated Amount (April 2006)	Current Board Action No. 10 (July 2008)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 1,800,000	\$ -	\$ 1,800,000
Owner Costs (Program mgmt, environ. monitoring, DSOD coordination, public outreach, process hazard analysis, & consultant design review)	6,177,750 *	3,266,000	9,443,750
Final Design	5,010,237 *, ***	-	5,010,237
Submittals Review/Field Engineering	1,962,000	3,426,000	5,388,000
Construction Inspection and Support	7,413,000	21,148,000	28,561,000
Metropolitan Force Construction	1,677,000	4,031,000	5,708,000
Materials and Supplies	8,289,650	391,000	8,680,650
SCADA System Eqpt.	-	370,000	370,000
IT Eqpt. (Servers, workstations)	-	131,000	131,000
Incidental Expenses	947,182 *	228,000	1,175,182
Professional/Technical Services	18,880,567 *, ***	-	18,880,567
CDM	-	5,760,000	5,760,000
Ecosystems Restoration Assoc.	-	469,000	469,000
Johnson Controls	-	590,000	590,000
KDG	-	609,000	609,000
Process Applications	-	50,000	50,000
CH2M Hill	-	2,250,000	2,250,000
GeoPentech	-	100,000	100,000
Equipment Use	33,000	186,000	219,000
Contracts	100,557,830 *	176,232,000	276,789,830
Remaining Budget	4,629,784 *	12,263,000	16,892,784
Appropriation Adjustment	-	(27,625,600) **	(27,625,600)
Total	\$ 157,378,000	\$ 203,874,400	\$ 361,252,400

* Includes previous allocation of \$1,578,500 for tunnel design, hydraulic modeling, relocation of fuel tank, and redesigned LOX tank farm; \$350,000 for hazardous material removal, elec. ductbank mods, and additional earthwork; \$383,236 for additional DSOD-requested geo-technical studies, EIR revision, value engr. & construct comments, and staff review; \$4,430,000 for increased design costs for environmental & OCFA review, maintenance & operability design enhancements, relocation of facilities due to poor site soil conditions, and DSOD fees; \$1,722,330 for site preparation construction field changes.

** Reflects transfer of \$27,625,600 from the Diemer ORP Program (Approp. 15389) to Diemer Improvements Program (Approp. 15380) to reflect actual costs after completion of the Diemer ORP Site Preparation Project.

*** Reflects use of consultants to perform design as authorized by Board in July 2005, (\$9,487,000).

Funding Request

Program Name:	Diemer Oxidation Retrofit Program		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15389	Board Action No.:	10
Requested Amount:	\$ 203,874,400	Capital Program No.:	15389-W
Total Appropriated Amount:	\$ 361,252,400	Capital Program Page No.:	E-26
Total Program Estimate:	\$ 370,748,000	Program Goal:	WQ/Compliance

Financial Statement for Diemer Improvements Program

A breakdown of Board Action No. 15 for Appropriation No. 15380 is as follows:

	Previous Total Appropriated Amount (May 2008)	Current Board Action No. 15 (July 2008)	New Total Appropriated Amount
Labor			
Studies and Investigations	\$ 1,419,500	\$ -	\$ 1,419,500
Owner Costs (Program mgmt, environ. monitoring)	4,011,550	219,000	4,230,550
Final Design	1,502,900	-	1,502,900
Submittals Review	-	230,000	230,000
Construction Inspection and Support	355,350	1,422,000	1,777,350
Metropolitan Force Construction	1,671,268	273,000	1,944,268
Materials and Supplies	644,000	33,000	677,000
Incidental Expenses	41,000	15,000	56,000
Professional/Technical Services	6,310,000		6,310,000
CDM	373,000	390,000	763,000
Ecosystems Restoration Assoc	55,000	32,000	87,000
KDG	-	41,000	41,000
Equipment Use	66,500	12,000	78,500
Contracts	23,095,500	11,849,000	34,944,500
Remaining Budget	2,185,432	984,000	3,169,432
Appropriation Adjustment	-	27,625,600 *	27,625,600
Total	\$ 41,731,000	\$ 43,125,600	\$ 84,856,600

* Reflects transfer of \$27,625,600 from the Diemer ORP Program (Approp. 15389) to Diemer Improvements Program (Approp. 15380) to reflect actual costs after completion of construction of the Diemer ORP Site Preparation Project.

Funding Request

Program Name:	Diemer Improvements Program		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15380	Board Action No.:	15
Requested Amount:	\$ 43,125,600	Capital Program No.:	15380-I
Total Appropriated Amount:	\$ 84,856,600	Capital Program Page No.:	E-24
Total Program Estimate:	\$ 144,100,000	Program Goal:	Infrastructure Reliability

**THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA**

**ADDENDUM NO. 3
OF THE ENVIRONMENTAL REVIEW DOCUMENTS
FOR
THE ROBERT B. DIEMER TREATMENT PLANT
IMPROVEMENTS PROGRAM
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

(State Clearinghouse No. 2005081144)

**Prepared by
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REPORT NO. 1152B, Addendum No. 3

June 2008

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1.0 INTRODUCTION

1.1 PURPOSE OF ADDENDUM

This document is the third Addendum to environmental review documents for the Robert B. Diemer Treatment Plant Improvements Program. Specifically, this is an Addendum to the Subsequent Environmental Impact Report of March 2006 (State Clearinghouse #2005081144). The two prior Addenda were for the Final Environmental Impact Report of December 2000 (State Clearinghouse #1999071059). The Subsequent Environmental Impact Report (SEIR) was certified by The Metropolitan Water District of Southern California's (Metropolitan) Board of Directors in March 2006. The Findings of Facts, Statement of Overriding Considerations and Mitigation Monitoring Program, along with the original project, also were adopted in March 2006. Subsequent to the certification of the SEIR, minor modifications to the original project have become necessary and are more fully described below.

To comply with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000 et seq.) and *State CEQA Guidelines* (California Code of Regulations Sections 15000 et seq., hereinafter referred to as "*Guidelines*"), this Addendum to the adopted 2006 EIR has been prepared to evaluate the proposed changes to the project's description as outlined in the SEIR.

1.2 REGULATORY BACKGROUND

According to Section 15164(a) of the *Guidelines*, the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred. Section 15162 of the *Guidelines* lists the conditions that would require the preparation of a subsequent EIR rather than an addendum. These include the following:

1. Substantial changes are proposed in the project that will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes will occur with respect to the circumstances under which the project is undertaken that will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time of the previous EIR was certified as complete or the Negative Declaration was adopted, shown any of the following:
 - A. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;
 - B. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

- C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternative; or
- D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measures or alternative.

Metropolitan has reviewed the proposed modifications to the project, described in detail in Section 3.0 of this Addendum, in light of Section 15162 of the *Guidelines*. As the CEQA Lead Agency, Metropolitan has determined that none of the above conditions apply and an Addendum to the certified SEIR is the appropriate environmental documentation for the proposed modifications to the project.

2.0 INCORPORATION BY REFERENCE

The following documents listed in reverse chronology were used in the preparation of the addendum and are incorporated herein by reference consistent with Section 15150 of the *Guidelines*:

- *Robert B. Diemer Treatment (sic) Plant Improvements Project Final Subsequent Environmental Impact Report SCH. No. 2005081144*. March 2006, Metropolitan Report No. 1152B, which includes by reference:
 - *Robert B. Diemer Treatment Plant Improvements Subsequent Environmental Impact Report (Draft)*. January 2006. Metropolitan Report No. 1152B.
- *Addendum No. 2 to the Final Environmental Impact Report for the Robert B. Diemer Filtration Plant Improvements Project (State Clearinghouse No. 1999071059)*. February 2004, Metropolitan Report No. 1152.
- *The Metropolitan Water District Of Southern California Robert B. Diemer Filtration Plant Improvements Project Final Supplemental Environmental Impact Report SCH# 1999071059*. August 2002, Metropolitan Report No. 1152, Volume II, which includes by reference:
 - *Robert B. Diemer Filtration Plant Improvements Project Draft Supplemental Environmental Impact Report State Clearinghouse No. 1999071059*. May 2002, Metropolitan Report No. 1152.
- *Addendum No. 1 to the Robert B. Diemer Filtration Plant Improvements Project Final Environmental Impact Report State Clearinghouse No. 1999071059*. November 2001, Metropolitan Report No. 1152 Addendum 1.
- *The Metropolitan Water District of Southern California Robert B. Diemer Plant Improvement Project Final Environmental Impact Report SCH# 1999071059*. February 2000. Metropolitan Report No. 1152, Volume III, which includes by reference:
 - *The Metropolitan Water District of Southern California Robert B. Diemer Filtration Plant Improvement Project, Findings of Fact, Statement of Overriding Considerations, And Mitigation Monitoring And Reporting Program*. December 2000. Metropolitan Report No. 1152, Volume IV.
 - *Robert B. Diemer Filtration Plant Improvements Project, Draft Environmental Impact Report, State Clearinghouse No. 1999071059*. September 2000. Metropolitan Report No. 1152.

3.0 PROJECT MODIFICATION DESCRIPTION

Since approval of the original project, minor project modifications are proposed that need to be addressed within the context of CEQA and the *Guidelines*. The Robert B. Diemer Treatment Plant Improvements Project modifications primarily relate to the Ozone Retrofit Project (ORP) and consist of changes to construction techniques to address seismic issues and timelines and minor modifications and additions to the ORP.

3.1 OZONE CONTACTORS AND OZONE BUILDING

The new ozone contactors and ozone generation building (parts of the approved ORP construction) initially were planned to be constructed over the newly placed roller-compacted concrete foundation area (constructed as part of the Site Preparation Project), with about 18 feet of compacted soil in between. During final design, however, structural concrete fill was deemed more appropriate than compacted soil to address seismic concerns. As such, approximately 24,000 cubic yards (cy) of structural concrete (37,800 tons) will be used instead of the same volume of compacted soil. The September 2000 DEIR estimated approximately 51,000 cy of imported material for ORP construction (more than the 24,000 cy imported here). The concrete will be obtained from a temporary concrete batch processing plant located on site (described further below). Construction of these two buildings is slightly delayed from initial estimates of February 2008 to February 2009 and is now anticipated to begin in September 2008; completion—excluding mechanical, electrical, and architectural finishing work—is expected to take 20 months. Due to the extended construction period and chronological spacing of projects, the average number of truck trips per day decreases from seven to three.

3.2 MAJOR DUCT BANK

To avoid damage from a major seismic event, the major electrical duct bank that links up all the electrical facilities from the new switchgear building will be re-routed through a more stable geological formation. Because the new route is a longer run from the switchgear building to the main plant level where the ozone contactor and generation buildings are, the necessary non-balanced grading of excavated and fill materials increases in volume. The amount of material excavated for the duct bank has increased from 4,365 cy (6,778 tons) to approximately 16,000 cy (25,000 tons). The amount of fill has increased from 2,061 cy (3,200 tons) to 10,300 cy (16,000 tons). Excess fill will be used to reduce the amount of imported fill required for ORP work. The estimated construction time has been delayed by approximately nine months for a new start date of September 2009 and finish date of July 2010. The duration of construction remains at approximately 10 months. Because the equipment remains on site, the number of truck trips remains the same.

3.3 LIQUID OXYGEN TANK FARM (LOX)

To avoid damage to equipment and piping from a major seismic event, the LOX facility is being moved from the south site (old concrete batch plant area) to the lower pad, which is underlain by a more stable rock formation. Construction is being delayed to between September 2009 and May 2010. This modification results in a slight decrease in overall soil movement and the number of truck trips from four to one a day.

3.4 ORP REJECTION PIPELINE

Previously, Metropolitan planned to use cut-and-cover techniques for the rejection conduit cut-and-fill construction. However, further seismic review indicated that the original design was complex and expensive. The revised design calls for tunneling directly under the west filter structure, which will reduce the length of the conduit and decrease the amount of soil removal. It also will require expansion of the north portal (60 feet), where the pipeline transitions from at-grade to below-grade, and widening of the lower maintenance road by approximately 20 feet for improved construction access and safety. This work is anticipated to begin in December 2008 and to take approximately two years.

The rejection tunnel excavation, fill, and import will be reduced by approximately 9,019 cy (14,247 tons) of material by switching from cut-and-cover construction to a tunneling technique, which will require a portal. The majority of the excavated 15,701 cy will be performed at the north side of the Diemer Plant to create an adequate portal space with 15,701 cy fill for the tunnel-boring machine and to connect the new pipeline with the existing rejection system. The change to the tunneling method will increase overall material handling for the ORP rejection line by approximately 22,382 cy of soil (35,353 tons) to be excavated and used for fill. However, actual soil removal volumes associated with recently-constructed elements of the Diemer Improvements Program were less than estimated in the 2000 DEIR. Therefore, savings from as-builts against estimates provided in the 2000 DEIR offset this increase (2000 DEIR assumed 35,000 cubic yards). In addition to the heavy equipment previously disclosed in the DEIR, several additional pieces are needed for this work, possibly including a loader, motor grader, backhoe loader, dump trucks, and tunnel boring machine. Approximately nine truck trips per day are expected instead of the four previously estimated. No impacts to the adjacent protected walnut trees would occur and proposed replacement landscaping is consistent with Orange County Fire Authority recommendations and native habitats. Temporary impacts to landscaping areas will be repaired upon completion.

3.5 DIEMER ORP CONSTRUCTION: CONCRETE BATCH PLANT

Similar to the Site Preparation Project described in the 2006 SEIR, Metropolitan proposes a temporary concrete batch processing plant on the Diemer Plant site for the Diemer Plant ORP construction. Two options are available for the location of the batch plant: the lay-down area southwest of the new ozone contactors, or the southern pad located south of the new ozone contactors. Only one site will be chosen for the placement of the concrete batch plant, which will mix concrete on site for use during the construction of the ORP facilities. Operations will comply with the Noise Ordinances for the County of Orange and City of Yorba Linda restricting use between the hours of 8:00 P.M. to 7:00 A.M. The concrete batch plant is anticipated to be installed in September 2008 and operate for approximately 34 months. The estimated amount of

structural concrete fill below the new ozone contactors and ozone generation building is approximately 24,000 cy. Approximately three truck trips per day will import aggregate and cement for mixing concrete on site. The batch plant will provide concrete only for Metropolitan's needs at the Diemer Plant and will not provide concrete services for any off-site public or private projects.

3.6 SCE ELECTRICAL POWER LINE ALIGNMENT

The power poles and power lines described in the December 2005 SEIR have been relocated to conform better to the topography of the site and to remain accessible to SCE via plant access roads. The new alignment is still adjacent to environmentally sensitive areas. However, less than significant impacts were previously identified in the 2006 SEIR (3.3-33) and are covered under the Shell Oil/Metropolitan Habitat Conservation Plan (HCP) prepared for impacts on native vegetation and sensitive species at the Diemer Plant; therefore, although this item is a modification to the original project, it does not result in an increase to biological impacts associated with the project.

3.7 OFF-SITE PARKING OPTIONS

The offsite parking discussed in the 2005 SEIR (ES-9) would be modified to eliminate off-site parking, e.g. the Suzuki site less than a mile from Site 4 north of Imperial Highway, as identified in the SEIR. The Suzuki site would have had similar impacts to those of Site 4. But now that this option has been eliminated, the contractor will be responsible for ensuring any necessary additional environmental reviews that result from the contractor's subsequent decision to negotiate parking.

3.8 POST-ORP DIEMER ROAD REPAVING

Due to ongoing construction activities, the existing road paving throughout the Diemer Plant has been damaged and needs repair or replacement. The 2006 SEIR identified Perimeter Road Rehabilitation as one of the components of the Diemer Improvement Program. However, the current design is more extensive, calling for removal and replacement of approximately 10 acres of roadways upon completion of the ORP in April 2012. This modification involves the removal of approximately 5,000 cy of asphalt (8,000 tons) off site and the importation of approximately 16,000 cy of new asphalt (25,000 tons). The repaving work is anticipated to begin around April 2012 and to take approximately one month to complete. The work consists of removing any remaining existing asphalt concrete paving; reconditioning the top 12 inches of existing soil, and placing and compacting the new aggregate base and asphalt paving. Several pieces of heavy equipment are expected for this work, including scrapers, dump trucks, compactors, pavers, and rollers. Approximately 28 truck trips per day are expected for exporting and importing of material. Significant air quality impacts from NOx would be expected from this activity. However, the 2006 SEIR already disclosed significant air quality impacts for the Diemer Improvements Program, and this activity would not increase those impacts already identified in the SEIR.

3.9 BACKFILL: SHORING WALLS

Backfill material for the Diemer Plant ORP construction will be needed, particularly for the area between the shoring walls that run from the west to the east side of the new ozone contactors and ozone generation building. Construction is expected between December 2010 and July 2011. Approximately 27,000 cy of soil material is expected to be imported, using approximately 12 truck trips per day. The combined amount of imported fill materials remain similar to the 51,000 cy estimated in the 2000 DEIR (24,000 cy plus 27,000 cy). Significant air quality impacts from NOx would be expected from this activity. However, the 2006 SEIR already disclosed significant air quality impacts for the Diemer Improvements Program, and this activity would not increase those impacts already identified in the SEIR.

3.10 FINISHED WATER RESERVOIR (FWR) SEISMIC RETROFIT

A seismic safety upgrade of the FWR to provide emergency means to shut off flows with slide gates was evaluated in the September 2000 DEIR (2-25) and completed in 2006. Additional Diemer Reliability Studies identified two additional necessary seismic upgrades, retrofitting to caisson supports and reinforcing approximately 1,600 square feet of the reservoir floor with two-foot-thick concrete (140 cy). The caissons' retrofit consists of installing twenty-two 36-inch diameter Cast-in-Drilled Hole (CIDH) concrete piles along a 65-foot length of the south FWR wall. Approximately 700 cy of material will be excavated and approximately 730 cy of slurry and concrete imported to fill the 40-foot-deep holes. Construction is proposed between October 2008 and March 2009. Several pieces of heavy equipment are expected for this work, including a loader, grader, water trucks, dump trucks, compactors, concrete mixer and a drill. Approximately 20 truck trips per day are expected for construction. Significant air quality impacts from NOx would be expected from this activity. However, the 2006 SEIR already disclosed significant air quality impacts for the Diemer Improvements Program, and this activity would not increase those impacts already identified in the SEIR.

The above modifications along with the general construction of the ORP do not exceed the total import fill/truckloads cited in the 2000 DEIR on page 2-51.

The 2000 DEIR estimated 465,000 cy of material would be excavated to prepare the structural foundations and bury the contact basins. The actual amount of material excavated was 394,300 cy. The majority of this excavated material was used for the upper pad expansion rather than being stockpiled on the southern pad, thereby eliminating stockpiling and double handling of the material. Additionally, no off-site hauling of excavated material (estimated at 45,000 cy in the 2000 DEIR) was required. The imported fill estimate of 51,000 cy for the 27,000 cy of imported fill and the 24,000 cy of imported materials for the structural concrete offset the ORP. The additional 22,382 cy of material-handling arising from switching to the tunnel portal is offset by the actual amount of material excavated (394,300 cy) versus the 2000 DEIR estimated (465,000 cy). Therefore, the material excavated/imported is consistent with those figures disclosed in the 2000 DEIR.

Implementation of the modifications to the DTPIP would support the following original project objectives:

- Provide additional service life to the plant.
- Ensure reliable drinking water to southern California through plant improvements and proper maintenance.

- Improve the efficiency and effectiveness of the plant to meet increasingly stringent water quality requirements.
- Improve the structural safety and stability of the plant.

4.0 ENVIRONMENTAL SETTING AND ANALYSIS

The Diemer Plant occupies an approximately 200-acre site atop a ridge on the southern edge of the Chino Hills in northeastern Orange County, about thirty miles southeast of Los Angeles. The eastern 164 acres of the Diemer Plant site are in an unincorporated area of Orange County. The western 36 acres of the site are in the incorporated City of Yorba Linda. The Diemer Plant address is 3972 Valley View Avenue, Yorba Linda, CA 92886.

The Diemer Plant site is surrounded by mixed residential and commercial uses, public parks, and a golf course. The Chino Hills State Park is directly north and east of the Diemer Plant site. Parts of the park adjacent to the Diemer Plant site include Telegraph Creek, Carbon Canyon Creek and other hilly open space that includes several public recreation trails. Carbon Canyon Regional Park, operated by the County of Orange, is approximately a quarter mile northwest of the Diemer Plant site at 4442 Carbon Canyon Road. The Vista Del Verde residential/golf course development is west and south of the Diemer Plant site. Land uses beyond these immediately adjacent areas surrounding the Diemer Plant site consist mainly of residential uses, open space, and a variety of commercial centers.

Most of the Diemer Plant facilities are on a hilltop at an elevation of approximately 820 feet, roughly located at the center of the Diemer Plant site. Access to the site is via Diemer Road from the south from Valley View Circle via Valley View Avenue. Valley View Avenue provides access to Imperial Highway and the regional freeway network including State Route (SR) 57 and SR 91. On the northwesternmost part of the Diemer Plant site, there are four lagoons on the western segment of Telegraph Creek near its confluence with Carbon Canyon through Chino Hills State Park. This easement originally was granted by Shell Oil Company, the former owners of this part of the park property in 1969, and continues today, although the surrounding lands are now part of the Chino Hills State Park.

The currently proposed project work is within the Diemer Plant site and is thus within the study area previously analyzed in the Subsequent EIR. The following discussion addresses the effects of the proposed modification relative to the analysis of the broader DTPIP provided in the Subsequent EIR.

4.1 TRANSPORTATION/TRAFFIC

4.1.1 SETTING

A Traffic Impact Analysis was prepared by P & D Consultants in December 2005 for the Subsequent EIR dated March 2006. The traffic study identified existing levels of service for seven roadway segments and eight intersections. The study also forecast the 2007 cumulative level of service for the same roadway segments and intersections by applying a growth rate of two percent per year and the traffic from other approved projects in the City. According to City of Yorba Linda Planning staff, no new reasonably foreseeable cumulative projects besides those considered in the traffic study have been proposed or are anticipated in the vicinity of the project (Bruce Cook, Principal Planner, March 6, 2008, personal communication). Note that the 2005 Traffic Impact Analysis did not include trips from the Yorba Linda High School, currently under construction, because the high school was not anticipated to open until 2008, well after the expected peak of project construction traffic in October 2007. However, as circumstances have

changed, the high school is now anticipated to open in Fall 2010. This section will demonstrate that the trips from Diemer construction traffic forecast for 2010 through 2012 plus the traffic from the high school would not exceed the peak construction traffic analyzed in the December 2005 Traffic Impact Analysis. As a result, for purposes of this analysis, the existing and cumulative setting presented in the December 2005 Traffic Impact Analysis has not changed.

4.1.2 IMPACTS

The construction activities analyzed in the Traffic Impact Analysis and the Subsequent EIR were planned to take place between April 2006 and November 2010. The peak construction traffic was expected to take place in October 2007 with 554 daily Passenger Car Equivalent (PCE) trips. This 554 PCE represented the highest volume of construction traffic over the entire construction schedule. As explained in the project description, the construction schedule for several components of the project has been extended to May of 2012. Although the schedule has changed, the total increase in traffic will not exceed the maximum envelope of 554 PCE previously analyzed.

Vehicle Trips. As discussed in the project description, changes to several of the project components will occur over the next four to five years. While some of the changes pertain to the schedule of construction, others would generate fewer or additional truck trips. Figure 4.1-1 shows the construction traffic as analyzed in the December 2005 Traffic Impact Analysis. Table 4.1-1 presents the components of the project that would result in changes to truck trip generation, along with the anticipated timing for each component.

As discussed in the settings analysis, Yorba Linda High School is currently under construction and is anticipated to open in Fall 2010. This project was not considered in the previous traffic impact analysis. The daily construction traffic generated by the project, along with the daily long-term traffic generated by the Yorba Linda High School on Diemer Plant construction truck routes was added to the previously estimated trip generation for each month. This comparison is shown in Table 4.1-2, below, which indicates that in December 2010, the Diemer Plant construction and Yorba Linda High School would contribute a maximum of 460 daily trips to designated truck routes. As discussed previously, the maximum daily trips analyzed in the December 2005 Traffic Impact Analysis was 554 trips along with the traffic from all reasonably foreseeable cumulative projects in the study area. The maximum of 460 daily trips generated by the current project and the Yorba Linda High school would be 94 fewer daily trips than analyzed previously. Therefore, all traffic impacts due to construction trips have been disclosed in the December 2005 Traffic Impact Analysis and the 2006 Subsequent EIR.

Pavement Impacts. The December 2005 traffic impact study concluded that the pavement section on Valley View Avenue would need to be rehabilitated to accommodate a Traffic Index (TI) of 9.3 to prevent the pavement from premature deterioration due to the construction project. Mitigation Measure T-1 of the 2006 SEIR, requiring rehabilitation of the pavement on Valley View Circle as needed during and at the end of construction is still warranted due to the ongoing presence of construction vehicles on Valley View Avenue.

**TABLE 2.4-2
CONSTRUCTION TRAFFIC – PCE DAILY TRIPS^{III}**

2006	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Craft Vehicles	–	–	–	0	12	22	32	22	20	24	20	6
Inspection	–	–	–	2	2	6	8	6	6	6	6	2
Light Duty	–	–	–	0	6	20	22	16	16	18	16	6
Medium Trucks	–	–	–	0	12	18	12	12	6	12	6	6
Heavy Trucks	–	–	–	0	30	18	30	6	6	360	354	348
Large Equipment	–	–	–	0	12	18	24	12	12	18	12	6
TOTAL	–	–	–	2	74	102	128	74	66	438	414	374
2007												
Craft Vehicles	6	8	10	12	10	18	16	14	12	20	24	10
Inspection	2	2	2	2	2	4	4	4	4	12	14	10
Light Duty	6	6	8	10	8	18	16	10	8	18	26	8
Medium Trucks	6	6	12	12	12	18	18	12	12	18	18	12
Heavy Trucks	348	348	354	354	354	456	456	456	456	474	24	18
Large Equipment	6	6	12	12	12	6	6	6	6	12	12	6
TOTAL	374	376	398	402	398	520	516	502	498	554	118	64
2008												
Craft Vehicles	34	56	62	62	64	62	62	38	26	24	28	16
Inspection	16	20	16	16	16	16	16	14	10	8	8	6
Light Duty	20	26	26	26	28	28	28	22	16	14	16	10
Medium Trucks	24	24	24	24	24	18	18	12	12	12	18	6
Heavy Trucks	36	96	120	120	120	120	120	60	48	42	48	42
Large Equipment	18	18	18	18	18	24	24	18	12	6	12	6
TOTAL	148	240	266	266	270	268	268	164	124	106	130	86
2009												
Craft Vehicles	14	14	14	14	14	14	14	8	8	8	8	8
Inspection	6	6	6	6	6	6	6	2	2	2	2	2
Light Duty	8	8	8	8	8	8	8	4	4	4	4	4
Medium Trucks	6	6	6	6	6	6	6	6	6	6	6	6
Heavy Trucks	42	42	42	42	42	42	42	6	6	6	6	6
Large Equipment	6	6	6	6	6	6	6	6	6	6	6	6
TOTAL	82	82	82	82	82	82	82	32	32	32	32	32
2010												
Craft Vehicles	8	8	8	8	6	6	6	6	6	4	4	–
Inspection	2	2	2	2	2	2	2	2	2	2	2	–
Light Duty	4	4	4	4	4	4	4	4	4	4	4	–
Medium Trucks	6	6	6	6	6	6	6	6	6	6	6	–
Heavy Trucks	6	6	6	6	0	0	0	0	0	6	6	–
Large Equipment	6	6	6	6	0	0	0	0	0	0	0	–
TOTAL	32	32	32	32	18	18	18	18	18	22	22	–
2011												
Craft Vehicles	8	–	–	–	–	–	–	–	–	–	–	–
Inspection	2	–	–	–	–	–	–	–	–	–	–	–
Light Duty	4	–	–	–	–	–	–	–	–	–	–	–
Medium Trucks	6	–	–	–	–	–	–	–	–	–	–	–
Heavy Trucks	24	–	–	–	–	–	–	–	–	–	–	–
Large Equipment	6	–	–	–	–	–	–	–	–	–	–	–
TOTAL	50	–	–	–	–	–	–	–	–	–	–	–

Source: P&D Consultants (2005).

^{III} A passenger car equivalence (PCE) of 3.0 was applied to medium and heavy trucks and large equipment vehicles.

FIGURE 4.1-1

Table 4.1-2: Total Additional PCE Daily Trips

2008	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Dec 2005 Trip Generation ¹	148	240	266	266	270	268	268	164	124	106	130	86
Project Trip Generation ²	0	0	0	0	0	0	0	0	-3	57	57	72
Yorba Linda H.S. ^{3,4}	0	0	0	0	0	0	0	0	0	0	0	0
Total	148	240	266	266	270	268	268	164	121	163	187	158

2009	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Dec 2005 Trip Generation ¹	82	82	82	82	82	82	82	32	32	32	32	32
Project Trip Generation ²	72	72	72	12	12	12	12	12	3	3	3	3
Yorba Linda H.S. ^{3,4}	0	0	0	0	0	0	0	0	0	0	0	0
Total	154	154	154	94	94	94	94	44	35	35	35	35

2010	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Dec 2005 Trip Generation ¹	32	32	32	32	18	18	18	18	18	22	22	--
Project Trip Generation ²	3	3	3	3	15	24	24	24	24	24	24	60
Yorba Linda H.S. ^{3,4}	0	0	0	0	0	0	0	400	400	400	400	400
Total	35	35	35	35	33	42	42	442	442	446	446	460

2011	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Dec 2005 Trip Generation ¹	--	--	--	--	--	--	--	--	--	--	--	--
Project Trip Generation ²	45	45	45	45	45	45	45	0	0	0	0	0
Yorba Linda H.S. ^{3,4}	400	400	400	400	400	400	400	400	400	400	400	400
Total	445	445	445	445	445	445	445	400	400	400	400	400

2012	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Dec 2005 Trip Generation ¹	--	--	--	--	--	--	--	--	--	--	--	--
Project Trip Generation ²	0	0	0	84	84	0	0	0	0	0	0	0
Yorba Linda H.S. ^{3,4}	400	400	400	400	400	400	400	400	400	400	400	400
Total	400	400	400	484	484	400						

¹ Table 2.4-2, *Robert B. Diemer Treatment Plan Improvements Project Traffic Impact Study*, P&D Consultants, December 2005

² As shown in Table 4.1-1

³ Yorba Linda High School Draft EIR, September 2006

⁴ Tentative Opening Date is August 2010. Trips shown are Average Daily Trips added to Diemer plant truck routes (Bastanchury, Imperial Highway, and Valley View).

4.2 AIR QUALITY

4.2.1 SETTING

The air quality setting for the Plant site, located within the South Coast Air Basin (Basin), is the same as described in the FEIR and SEIR (refer to Section 3.2 in each document). Because the Plant is located in the Basin, the existing Plant and the proposed modifications to the approved DTPIP are in the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board. The Basin has been designated by the Environmental Protection Agency as a non-attainment area for ozone and suspended particulates. Areas not achieving the Nationwide Ambient Air Quality Standards defined under the Clean Air Act are required to develop and implement plans to meet these standards. The primary agencies for developing the plan in the South Coast Air Basin are SCAQMD and the Southern California Association of Governments. The Air Quality Management Plan (AQMP) establishes an emissions budget that represents emissions throughout the Basin and lists short-, medium-, and long-term strategies designed to improved air quality throughout the region. As part of the SEIR, in March 2006 Metropolitan's Board of Directors adopted a Statement of Overriding Considerations for Air Quality impacts associated with the DTPIP.

4.2.2 IMPACTS

The FEIR and SEIR analyzed short-term (construction) and long-term (operation) air quality impacts associated with the DTPIP. The EIRs indicated that temporary air quality impacts would result from construction of various program components. Exhaust pollutants generated from the operation of construction equipment and vehicle trips, as well as dust generated by grading activities were quantified. As noted in the EIRs, the project program was determined to exceed SCAQMD local significance thresholds for Nitrous Oxides (NOx) and Particulate Matter (PM-10).

As noted in the Transportation/Traffic section of this addendum, short-term and long-term traffic impacts would fall below the quantities analyzed in the 2005 Traffic Study. By extension, pollutant emissions associated with modifications to the DTPIP would not exceed the maximum daily emission projected in the SEIR; however, because the site is within a non-attainment area for ozone (precursor to NOx) and PM-10, impacts to air quality as a result of the modified DTPIP remain significant. This Addendum does not change the conclusion of the previous EIRs that the DTPIP would result in significant air quality impacts associated with NOx and PM-10. Mitigation measures identified in the FEIR and SEIR and contained in the Project's Mitigation Monitoring and Reporting Program would remain unchanged.

4.3 NOISE

4.3.1 SETTING

The existing noise setting for the Plant site is substantially the same as described in the FEIR and SEIR (refer to Section 3.8 in each document). Traffic noise levels are considerable along Imperial Highway where land uses in the project vicinity are primarily commercial. As is typical of secondary and collector roadways in the areas, noise levels are moderate along Bastanchury Road, Valley View Avenue, and Valley View Circle.. Noise standards and requirements are the same in both the County of Orange and the City of Yorba Linda Noise Ordinances. Among other standards, they state that the daytime noise level for a noise source measured at an outdoor area of

a residential property never can exceed 75 dBA (70 dBA for more than one minute of any hour, 65 dBA for more than five minutes of any hour, 60 dBA for more than 15 minutes of any hour, or 55 dBA for more than 30 minutes of any hour). Nighttime noise level limits are reduced by five dBA to reflect the increased sensitivity to noise occurring during this time period. However, construction activity is exempt from these standards between the hours of 7 a.m. and 8 p.m.

4.3.2 IMPACTS

Potential noise impacts commonly are divided into temporary and long-term categories. Temporary noise impacts generally are associated with project construction whereas long-term impacts are associated with noise generated during the operation of the project. Although modifications to the DTPIP as addressed in this Addendum result in changes to construction activity, that activity falls within the general parameters of the activity as described and analyzed in the previous EIRs. Therefore, this Addendum does not change the conclusion of the previous EIRs that the DTPIP would result in significant intermittent noise impacts on nearby residences and the State Park during construction. However, implementation of Mitigation Measure N-1 of the SEIR would ensure that construction would comply with the City and County Noise Ordinances and therefore, the project components would not result in a significant noise impact after mitigation. Furthermore, because of the overall reduction in traffic impacts compared to previous analysis as noted in Section 4.1, long term project operational and cumulative traffic-related noise impacts would likewise be lower than previously analyzed.

4.4 GEOLOGY AND SOILS

4.4.1 SETTING

The geology and soils setting for the Plant site is the same as described in the FEIR and SEIR (refer to Section 3.5 in each document). Previous studies have shown that the Diemer Plant area is underlain by fill material, colluvium (natural mixture of bedrock and soils), and bedrock formations. No active faults are known to traverse the Diemer Plant site. However, the Whittier Fault, which is active and capable of generating major earthquakes, is located approximately 0.5 kilometers north of the Diemer Plant and is identified on the Alquist-Priolo Earthquake Hazards Map. The Whittier Fault and others in the area are capable of significant ground-shaking movements that could affect the Diemer Plant area, and the potential for earthquake-induced landslides on the Diemer Plant site is considerable.

4.4.2 IMPACTS

The Diemer Plant is in a seismically active area, and several components of the DTPIP original design were determined to be subject to damage as a result of potential seismic activity. In particular, the way the Diemer Plant site was graded and filled in the early 1960s raised the risk of landslide on considerable portions of the site. When seismic mitigation measures in the adopted EIR were implemented, an improved design evolved and is described in the current modification proposal. Modifications 1-4, as listed in Section 3.0 (Project Modification Description) of this Addendum, are specifically designed to improve seismic stability of the DTPIP.

This Addendum does not change the conclusions of the previous EIRs, which indicate that implementation of the adopted geology and soils mitigation measures would reduce impacts

related to geology and soils associated with the project to below a level of significance. The DTPIP modifications are a response to those mitigation measures, thereby reducing impacts to geology and soils beyond the impacts associated with the original project.

5.0 LIST OF PREPARERS

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6.0 CONCLUSION

Section 15164(a) of the *Guidelines* states the following:

The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a Subsequent EIR have occurred.”

The proposed modifications to the original project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Furthermore, new information associated with the project modifications do not indicate that the project will have one or more significant effects not discussed in the previous EIR; that significant effects previously examined will be substantially more severe than shown in the previous EIR; that mitigation measures or alternatives previously found not to be feasible would in fact be feasible; or that mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measures or alternative. Accordingly, an addendum was prepared as opposed to a negative declaration or a subsequent environmental impact report. As the Lead Agency for the proposed project modification, Metropolitan is issuing this addendum in accordance with the *Guidelines* (Section 15164).

The Metropolitan Water District of Southern California

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6/12/08
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