

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

March 12, 2002 Board Meeting

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8-2

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**Subject**

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Authorize \$2.85 million for five Capital Investment Plan projects for the Power Reliability and Energy Conservation Program (Approp. 15391)

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**Description**

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Metropolitan began extensive energy conservation studies of its five filtration plants in 1995. Since then, numerous energy-saving measures have been implemented at our facilities, including Union Station. Most of these initiatives have required minimal capital expenditures, and many were accomplished as a part of regular operations and maintenance activities. The Power Reliability and Energy Conservation Program was developed in fiscal year 2000/01, as a result of the ongoing review of power reliability and energy use optimization throughout Metropolitan's facilities. The five projects described below are the initial projects identified during this review that require capital funding. Implementation of these projects will result in improved power reliability and provide significant permanent energy cost savings for Metropolitan with an overall payback period of five years. Additional measures are currently under review for future implementation and the current total program estimate is \$10 million.

The Power Reliability and Energy Conservation Program is currently comprised of five projects: (1) the OC-88 Energy Savings Modifications, that involves modifying the existing pump station to reduce the energy required for booster pumping, for which the current action requests funding for all work up to award of a construction contract, and also authorizes pre-purchase of long lead-time equipment such as pumps and other key material; (2) the Filtration Plant Energy Management Systems (EMS) Installation that adds an energy management system to the electrical power systems at the Diemer, Jensen, Mills, and Skinner filtration plants; (3) the La Verne Facility Lighting Upgrade that retrofits the existing lighting system with new energy efficient fixtures and sensors; (4) the La Verne Facility Heating and Air Conditioning Control System Upgrade that adds a control system to optimize energy efficiency of the existing HVAC systems at the facility; and (5) the Diemer Filtration Plant Power Feeder Relocation Study that studies options for relocating the main power feeders away from the potentially unstable south slope. The benefits of implementing these improvements were identified by staff and verified by an outside consultant.

Four projects described below have been evaluated and recommended by the Capital Investment Plan (CIP) Evaluation Team, and are included in the Capital Budget for fiscal year 2001/02. The Filtration Plant EMS Installation project was scheduled to begin in a later fiscal year, and thus is not budgeted for fiscal year 2001/02; however, the schedule for implementation has been accelerated in order to realize the identified cost savings sooner.

See [Attachment 1](#) for the Detailed Report, [Attachment 2](#) for the General Location Map, [Attachment 3](#) for the Financial Statement, [Attachment 4](#) for the Mitigated Negative Declaration, [Attachment 5](#) for Comments and Responses to the Mitigated Negative Declaration, and [Attachment 6](#) for the Mitigation Monitoring and Reporting Program.

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**Policy**

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Metropolitan Water District Administrative Code § 5108: Capital Projects Appropriation

Metropolitan Water District Administrative Code § 8113: Construction Contract Award

## **California Environmental Quality Act (CEQA)**

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CEQA determinations for Option #1:

The five proposed projects previously identified in the Power Reliability and Energy Conservation Program have been environmentally assessed in compliance with CEQA and the State CEQA Guidelines. The proposed OC-88 Energy Savings Modifications project has been evaluated in a Mitigated Negative Declaration, while the other four projects are deemed exempt from CEQA. The proposed projects have been grouped together by their similar CEQA determinations and discussed below.

### OC-88 Energy Savings Modifications

To comply with CEQA, Metropolitan as the Lead Agency prepared a Mitigated Negative Declaration (MND) on the proposed OC-88 Energy Savings Modifications project. The MND was distributed for a 30-day public review period starting on December 24, 2001. The MND includes the Initial Study and Environmental Checklist form and is found in **Attachment 4** of this board letter. **Attachment 5** contains comment letters received during the public review period along with applicable responses to those comments. As stated in the State CEQA Guidelines (Section 15074), the Board of Directors is required to review and consider the MND, the Initial Study, and comments received during the public review period prior to the adoption of the MND. Adoption of the MND is dependent on the finding by the Board that, based on the whole record before it, there is no substantial evidence that, with the mitigation measures required by the MND, the proposed project will have a significant impact on the environment. In addition, the MND reflects the Lead Agency's independent judgment and analysis. The mitigation monitoring and reporting program (MMRP) required under CEQA Section 21081.6 must also be adopted by the Board prior to project approval (**Attachment 6**). The administrative record and environmental documentation associated with the proposed project will be retained by Metropolitan at 700 N. Alameda Street, Los Angeles, CA 90012.

The CEQA determination is: Review and consider the information in the MND, Initial Study, and comments received during the public review period; adopt the MND for the proposed project; and adopt the MMRP.

### Filtration Plant Energy Management Systems Installation; La Verne Facility Lighting Upgrade; and La Verne Facility Heating and Air Conditioning Control System Upgrade

The three proposed projects are categorically exempt under the provisions of CEQA. The proposed activities involve the funding of three projects to replace or upgrade existing energy management systems at Metropolitan facilities with no expansion of use and no possibility of significantly impacting the physical environment. As such, the three proposed projects qualify under a Class 1 Categorical Exemption (Section 15301 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the three proposed projects qualify under a Categorical Exemption (Class 1, Section 15301 of the State CEQA Guidelines).

### Diemer Filtration Plant Power Feeder Relocation Study

The proposed project is categorically exempt under the provisions of CEQA. The proposed activities, i.e., to appropriate funding for the program planning, study, preliminary design, and preparation of environmental documentation for the proposed project, will consist of basic data collection and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. As such, the proposed projects qualify under a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed project qualifies under a Categorical Exemption (Class 6, Section 15306 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required.

**Board Options/Fiscal Impacts**

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**Option #1**

Adopt the CEQA determination and

- a. Appropriate \$2.85 million in budgeted and non-budgeted funds; and
- b. Authorize the Chief Executive Officer to have all work performed in advance of award of competitively bid contracts as required for the five projects identified under the Power Reliability and Energy Conservation Program, as described in this letter and its attachments.

**Fiscal Impact:** \$2.457 million of budgeted CIP funds and \$393,000 of non-budgeted funds under Approp. 15391.

**Option #2**

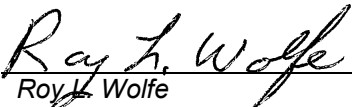

Do not perform studies, design, or construction of the five projects covered in this board letter.

**Fiscal Impact:** \$0 for the current FY 2001/02 budget. Implementation of this option will not enable Metropolitan to realize the benefits of the projects outlined in this letter.

**Staff Recommendation**

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Option #1

 Roy L. Wolfe Manager, Corporate Resources	2/20/2002 Date
 Ronald R. Gastelum Chief Executive Officer	2/21/2002 Date

[Attachment 1 - Detailed Report](#)

[Attachment 2 - General Location Map](#)

[Attachment 3 - Financial Statement](#)

[Attachment 4 - Mitigated Negative Declaration](#)

[Attachment 5 - Comments/Responses to the Mitigated Negative Declaration](#)

[Attachment 6 - Mitigation Monitoring and Reporting Program](#)

## Detailed Report

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### *Purpose/Background*

The Power Reliability and Energy Conservation Program was developed as a result of an ongoing review of power reliability and energy use optimization throughout Metropolitan's facilities. The five projects included here were identified during this review. Additional projects may need to be included in the program as the review process continues.

### *Project Descriptions*

The Power Reliability and Energy Conservation Program is currently comprised of five projects: (1) the OC-88 Energy Savings Modifications; (2) the Filtration Plant Energy Management Systems (EMS) Installation; (3) the La Verne Facility Lighting Upgrade; (4) the La Verne Facility Heating and Air Conditioning Control System Upgrade; and (5) the Diemer Filtration Plant Power Feeder Relocation Study.

### **OC-88 Energy Savings Modifications (\$2,037,000)**

This project will modify the existing OC-88 Pump Station to a closed-suction design to reduce energy costs at the facility. The current action authorizes all work up to the award of a construction contract. Currently, the four 1,500-horsepower pumps at OC-88 are an open-suction design, so they can draw water from the buried 2-million-gallon-forebay and pump it into the South County Pipeline for delivery to southern Orange County. The forebay is supplied with water by the Allen-McColloch Pipeline (AMP), which requires throttling valves to drop the pressure of the incoming flow. Since the pumps cannot utilize the available pressure in the AMP, the pump system is energy intensive and expensive to operate. The new closed-suction configuration will allow the system to pump water directly from AMP into the South County pipeline, thereby utilizing the pressure in the AMP. This will save the energy currently lost by throttling into the forebay, with the overall pumping cost savings estimated at 50 percent to 60 percent per year. Based on current power costs, the capital expenditure for this project will be recovered in approximately 5 years. The revised system will not use the forebay for potable water storage; thus eliminating the water quality problems resulting from switching the forebay in and out of service as is currently required. These modifications include surge protection capabilities for the AMP to protect it from an unanticipated pump station shutdown or failure.

This current action authorizes design of the OC-88 facility by Metropolitan staff. This current action also authorizes pre-purchase of long lead-time equipment such as pump(s) and other key material. The early purchase of key equipment by Metropolitan will ensure (1) that the overall construction duration is minimized and OC-88 is returned to service as quickly as possible, and (2) that the duration of required shutdowns of OC-88 during construction are minimized to meet service requirements of the Member Agencies. Once the OC-88 project is completed, the new pump purchased for this project will function as a stand-by unit, thereby increasing the overall reliability of the facility. In the future, staff will return to the board to authorize additional funding and award a competitively bid construction contract.

Major elements of the project include: construction of an additional 60-inch-diameter turnout and flowmeter vault; installation of approximately 150 feet of 66-inch-diameter buried steel pipe beneath the existing paved driveway; modification of the existing pumps to convert them to a closed-suction design; conversion of one fixed-speed pump to a variable speed drive; installation of an additional surge tank and retaining wall in the existing tank farm; and modification of the existing buried reservoir to house the new pump suction manifold and to create a surge relief chamber.

### *Actions and Milestones*

Mar. 2002 – Board authorization and funding for design

Jan. 2003 – Board authorization and funding to award a construction contract

Dec. 2003 – Complete construction

**Filtration Plant Energy Management Systems (EMS) Installation (\$393,000)**

This project will install an EMS for the power systems at Diemer, Jensen, Mills, and Skinner filtration plants. Each plant's EMS will monitor feeder load and overall plant demand in real time, using state-of-the-art digital power meters retrofitted into the plant's existing power substations. The data provided by the digital meters will be connected to the plant's main computer system and will be used by plant operators to optimize load management and power distribution throughout the plant. The data will also be used for establishing the base load for each plant and for load-shed operations to reduce peak demand charges. Implementation of EMS in the filtration plants will reduce their annual energy costs by an estimated 5 percent. A pilot EMS was installed at Weymouth filtration plant in 2001, and has helped plant operators trim power consumption by shifting electrical loads during high demand periods. This capability allows Metropolitan to avoid incurring peak demand charges. This project will consist of design, procurement, and installation by Metropolitan staff.

*Actions and Milestones*

Mar. 2002 - Board authorization and funding

Jun. 2002 - Complete design

Jun. 2003 - Complete construction

**La Verne Facility Lighting Upgrade (\$210,000)**

This project will retrofit the existing lighting with new fixtures, energy efficient lamps and electronic ballasts; and add control devices such as photocells and occupancy sensors to the system. Lighting systems have evolved since the facility was built and expanded. Many of the existing fluorescent and mercury vapor lighting fixtures are over 25 years old and are approaching the end of their useful life. In addition, the existing fluorescent and mercury lighting fixtures are inefficient in comparison to modern equipment. This project will utilize standard lighting components to assist in maintaining smaller inventories to reduce maintenance cost. Implementing the project will also reduce energy consumption for the lighting system by an estimated 50 percent. This project will consist of design, procurement, and installation by Metropolitan staff.

*Actions and Milestones*

Mar. 2002 - Board authorization and funding

Jun. 2002 - Complete design

Dec. 2003 - Complete construction

**La Verne Facility Heating and Air Conditioning Control System Upgrade (\$110,000)**

This project will add remote control to optimize energy efficiency of the existing heating and air conditioning systems at the La Verne facility. This involves installing radio transmitters on the facility's numerous heating and air conditioning units, so they can be monitored and controlled by a programmable master controller. The La Verne facility currently has over 100 individual and packaged heating and air conditioning units. This equipment is controlled by standard thermostats, which provide no means of remote control. The equipment is operated based solely on temperature, and will operate even when the areas served are normally unoccupied, such as weekends, nights, and holidays. Based on testing performed in the summer of 2001, implementing the project will reduce equipment operating hours by 40 percent, with corresponding reductions in energy consumption, maintenance costs, and equipment replacement costs. This project will consist of design, procurement, and installation by Metropolitan staff.

*Actions and Milestones*

Mar. 2002 - Board authorization and funding

Jun. 2002 - Complete design

Jun. 2003 - Complete construction

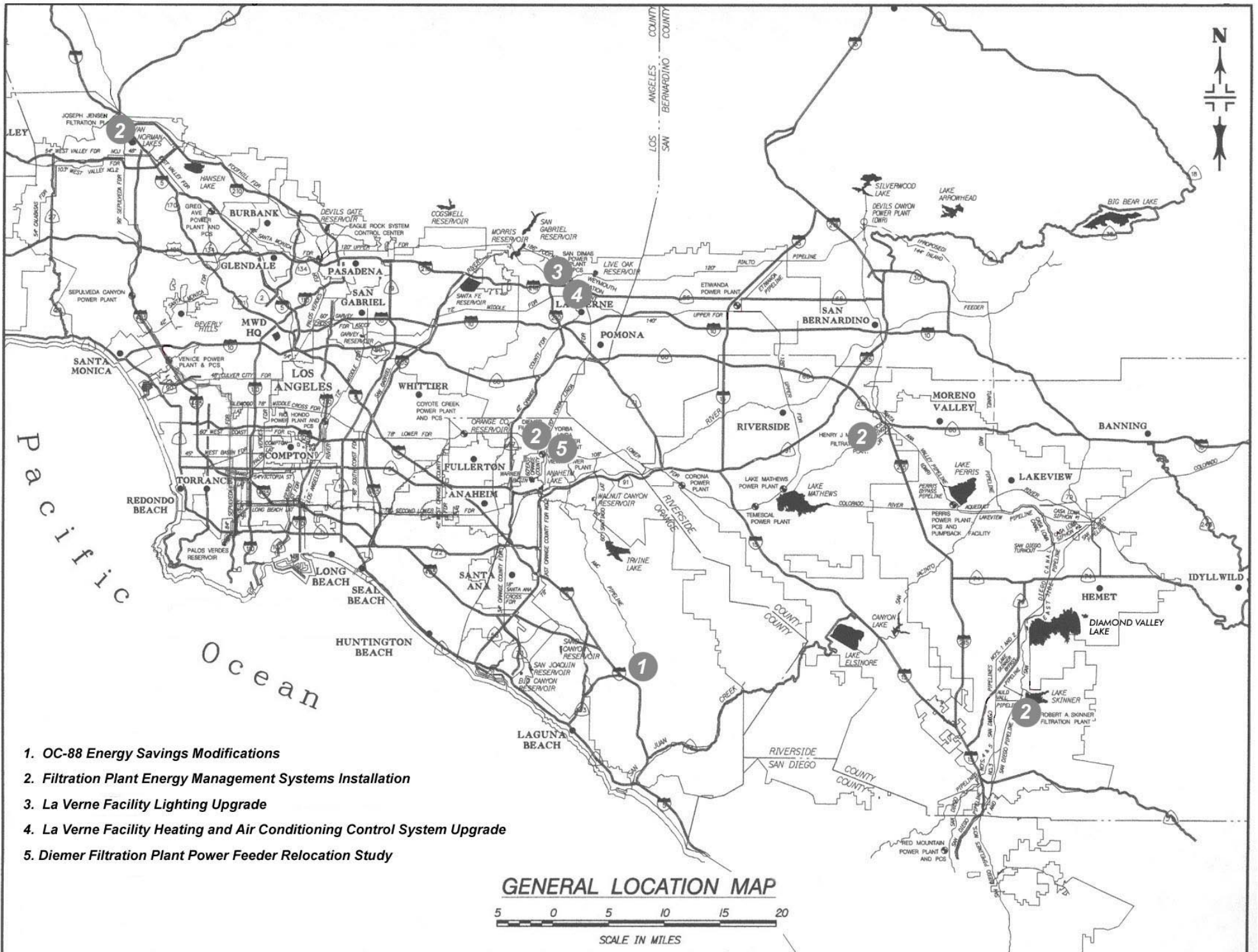
**Diemer Filtration Plant Power Feeder Relocation Study (\$100,000)**

This study will evaluate options for relocating the plant's main power feeders away from the potentially unstable south slope. The existing buried electrical duct bank feeds power up to the water treatment facilities from the main substation located below on the south hillside. Ground movement on the south slope has already damaged the duct bank once, disrupting power to the plant. Staff will evaluate the site conditions, study options available for the proposed new power conduit/cable system, and prepare CEQA documentation for the recommended alternative. Staff will return to the Board after completion of the study for funding authorization to proceed with final design and construction.

*Actions and Milestones*

Mar. 2002 – Board authorization and funding

Sep. 2002 – Complete study and report findings of recommendations to the Board



1. OC-88 Energy Savings Modifications
2. Filtration Plant Energy Management Systems Installation
3. La Verne Facility Lighting Upgrade
4. La Verne Facility Heating and Air Conditioning Control System Upgrade
5. Diemer Filtration Plant Power Feeder Relocation Study

**Financial Statement for Power Reliability and Energy Conservation Program**

A breakdown of Board Action No. 1 for Approp. No. 15391 authorizing funds for five Capital Investment Plan projects for the Power Reliability and Energy Conservation Program is as follows:

	<b>Board Action No. 1 (Mar. 2002)</b>
Labor	
Studies and Investigations	\$ 175,000
Design and Specifications	700,000
Owner Costs (Program Management, Environmental Docs., Control System Integration, Bidding Process)	225,000
Construction Management and Inspection	60,000
Water System Operations (Metropolitan Force, Installation and Construction)	271,000
Materials and Supplies	1,020,000
Incidental Expenses	10,000
Professional/Technical Services	10,000
Equipment Use	10,000
Contracts	0
Remaining Budget	369,000
<b>Total</b>	<b>\$ 2,850,000</b>

**Funding Request**

<b>Program Name:</b>	Power Reliability and Energy Conservation Program		
<b>Source of Funds:</b>	Construction Funds (possibly General Obligation, Revenue Bonds, Pay-As-You-Go)		
<b>Appropriation No.:</b>	15391	<b>Board Action No.:</b>	1
<b>Requested Amount:</b>	\$ 2,850,000	<b>Capital Program No.:</b>	01219-E
<b>Total Appropriated Amount:</b>	\$ 2,850,000	<b>Capital Program Page No.:</b>	E-61
<b>Total Program Estimate:</b>	\$ 10,000,000	<b>Program Goal:</b>	E-Efficiency/Productivity



Attachment 4  
(63 pages)

Mitigated Negative Declaration

Board Letter 8-2

March 12, 2002 Board Meeting

**The Metropolitan Water District  
of Southern California**

**Mitigated Negative Declaration  
OC-88 Energy Savings  
Modifications Project**

**For additional information  
regarding this document contact:**

**The Metropolitan Water District of Southern California  
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700 N. Alameda Street  
Los Angeles, CA 90012  
Ms. Laura Simonek  
(213) 217-6242**

**Metropolitan Report No. 1178**

**December 2001**

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## **SECTION 1 PROJECT DESCRIPTION**

### **PROJECT INTRODUCTION AND LOCATION**

The Metropolitan Water District of Southern California (Metropolitan) proposes the OC-88 Energy Savings Modifications Project (Project) in the city of Lake Forest in Orange County, California. Metropolitan is the lead agency for this Mitigated Negative Declaration and Initial Study. The proposed Project involves modifying the equipment and operations of the existing pump station to reduce energy usage and operating costs. The Project would provide a redundant method of service for Metropolitan's delivery of water to the Municipal Water District of Orange County (MWDOC), one of Metropolitan's member agencies. The OC-88 Pump Station is a service connection on the Allen McColloch Pipeline (AMP) that supplies potable water to southern Orange County. The modifications would include the installation of an underground pipeline and its appurtenant structures. This would directly connect the AMP with the OC-88 Pump Station, which feeds into the MWDOC supply line. Also, one additional surge tank would be installed to protect the AMP from any potential damaging pressure surges.

The proposed Project will take place entirely within the fenced boundaries of the existing OC-88 Pump Station facility, which is owned and operated by Metropolitan. The OC-88 Pump Station is located along Bake Parkway near the intersection of Bake Parkway and Commercentre Drive in the city of Lake Forest (see Figure 1). The immediate margins of the project site are landscaped with ornamental vegetation and the site is bordered to the north and east by industrial complexes, and to the west and south by undeveloped, native vegetation. The nearest residents are approximately one-third of a mile (1,760 feet) to the south. In addition, a local park, Tamarisk Park, is located adjacent to the nearby residences.

### **PROJECT BACKGROUND**

The AMP is a pressurized water pipeline constructed by MWDOC in the late 1970s and put in service in 1981. The AMP conveys water from Metropolitan's Robert B. Diemer Filtration Plant in Yorba Linda, 26 miles south, to its terminus at the El Toro Reservoir in Lake Forest. At the OC-88 Pump Station along the AMP (see Figure 1), approximately 100,000 acre-feet per year of potable water is diverted to an underground reservoir before it is finally pumped to the South County Pipeline. Metropolitan purchased the AMP and the OC-88 Pump Station from MWDOC in 1995 and is now responsible for the operation and maintenance of these facilities. The South County Pipeline is owned and operated by MWDOC for delivery to southern Orange County users.

The energy expended for the operation of the existing pumping process is projected to cost Metropolitan approximately two million dollars per year. The amount of energy and dollars expended for this process can be greatly reduced by installation of an underground pipeline that directly connects the AMP to the existing pumps that transfer water to the MWDOC line, thereby eliminating the reservoir stage of the transfer process. Implementation of the proposed Project would reduce energy consumption at the OC-88 Pump Station from 16.6 million kilowatt-hours

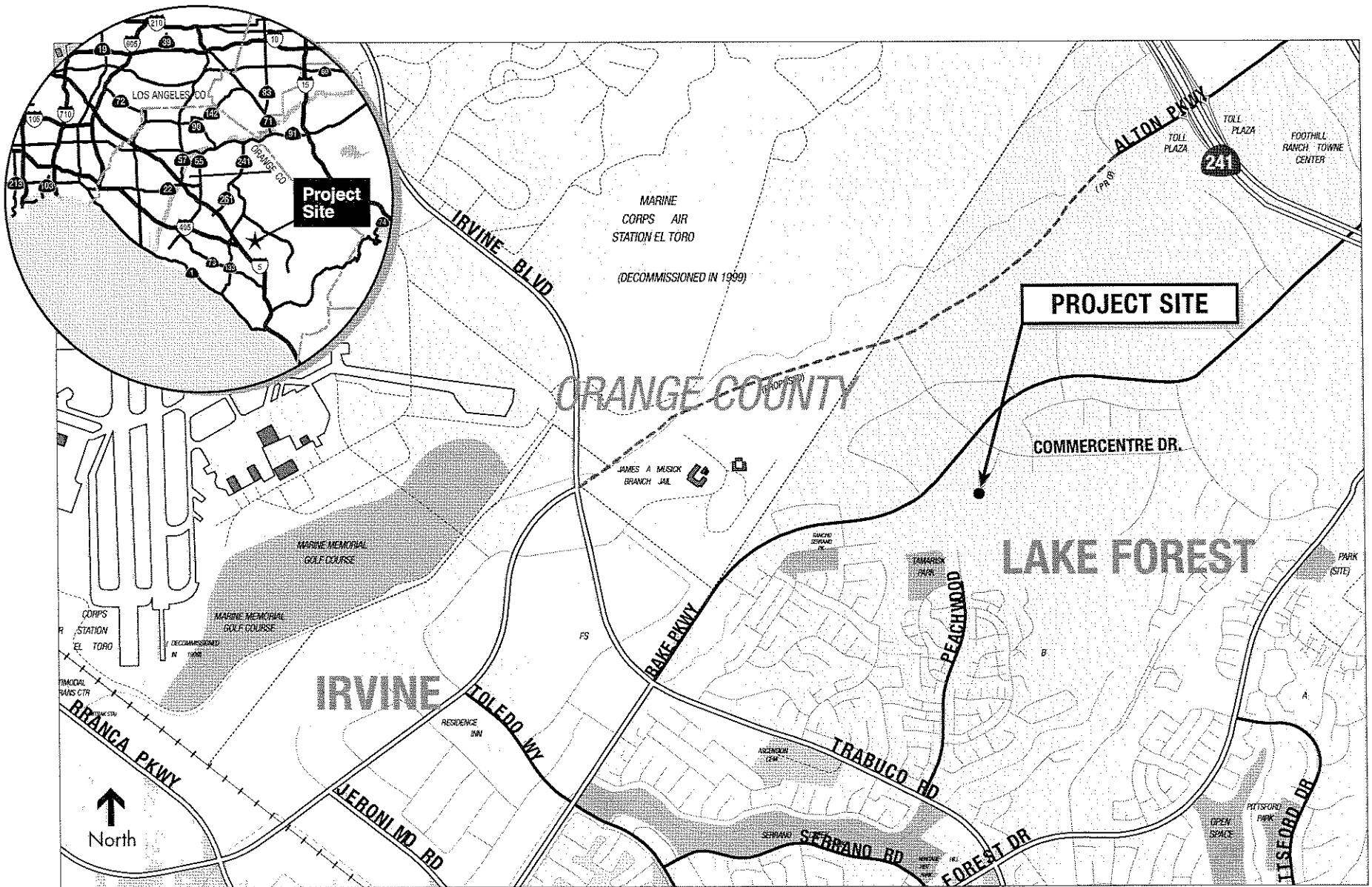


Figure 1 - Project Location Map

per year to 7.9 million kilowatt-hours per year. In addition, an optional element in the proposed Project would increase the service capacity to MWDOC at the OC-88 Pump Station from 100 cubic-feet per second (cfs) to 150 cfs. While water deliveries from OC-88 to MWDOC would increase, there would be a corresponding decrease in water deliveries through other AMP service connections and reduced flows through service connections on Metropolitan's East Orange County Feeder No. 2 pipeline. This would result overall in no net increase of water delivered to MWDOC from Metropolitan.

## PROJECT DESCRIPTION

The OC-88 Pump Station, which covers a 2.8-acre area, currently consists of a turnout structure, a pump house with four 1500-horsepower (hp) pumps, a buried reservoir, five surge tanks, interconnecting piping, a large paved driveway, and other appurtenant equipment. Water is diverted from the AMP through a concrete turnout structure and piping into the pump house. Here the pressure is dissipated through pressure-reducing valves. This low-pressure water is then piped into the buried reservoir for temporary storage before it is drawn into the pumps. The water is then pumped into the South County Pipeline to supply potable water to southern Orange County. The existing surge tanks protect the South County Pipeline from potential damages caused by pressure surges that might result from sudden shutdowns of the pump station.

The proposed Project (see Figure 2) would modify the current operations of the pump station facility to allow the water from the AMP to be piped directly to the pumps' intakes, thereby eliminating the above-described pressure-reduction step. Elimination of this pressure-reducing step is the primary component in realizing energy savings.

As will be explained further in the Project Schedule subsection, construction activities are anticipated to occur on approximately 0.75 acre of the Project site for a period of approximately six months. The following modifications to the facilities and equipment would occur during the six-month period:

- Construction of an additional 60-inch diameter turnout (valve structure) to divert water from the AMP;
- Installation of approximately 150 feet of 66-inch-diameter buried steel pipe beneath the existing paved driveway. This pipe would connect with the new turnout structure and carry the AMP water to the pump suction piping (suction manifold);
- Modification of the existing pumps to convert them to a closed-suction design, which entails shortening the pumps' suction barrels and shafts so they can be attached to the new suction manifold;
- Installation of a variable-speed drive for the one existing pump that currently has a fixed-speed drive so that it will match the other three existing pumps, which have variable-speed drives;
- Addition of one 13-foot-diameter by 55-foot-long horizontal surge tank in the existing surge tank farm. The surge tank farm would be enlarged slightly to accommodate the new tank;
- Modification of the existing buried reservoir by installing an interior wall to divide it into two sections. One section would house the new pump suction manifold and surge relief valves, and the other section would serve as a surge relief chamber draining into the existing reservoir overflow drain;
- Repaving of the driveway and planting of appropriate landscaping to match preconstruction conditions.



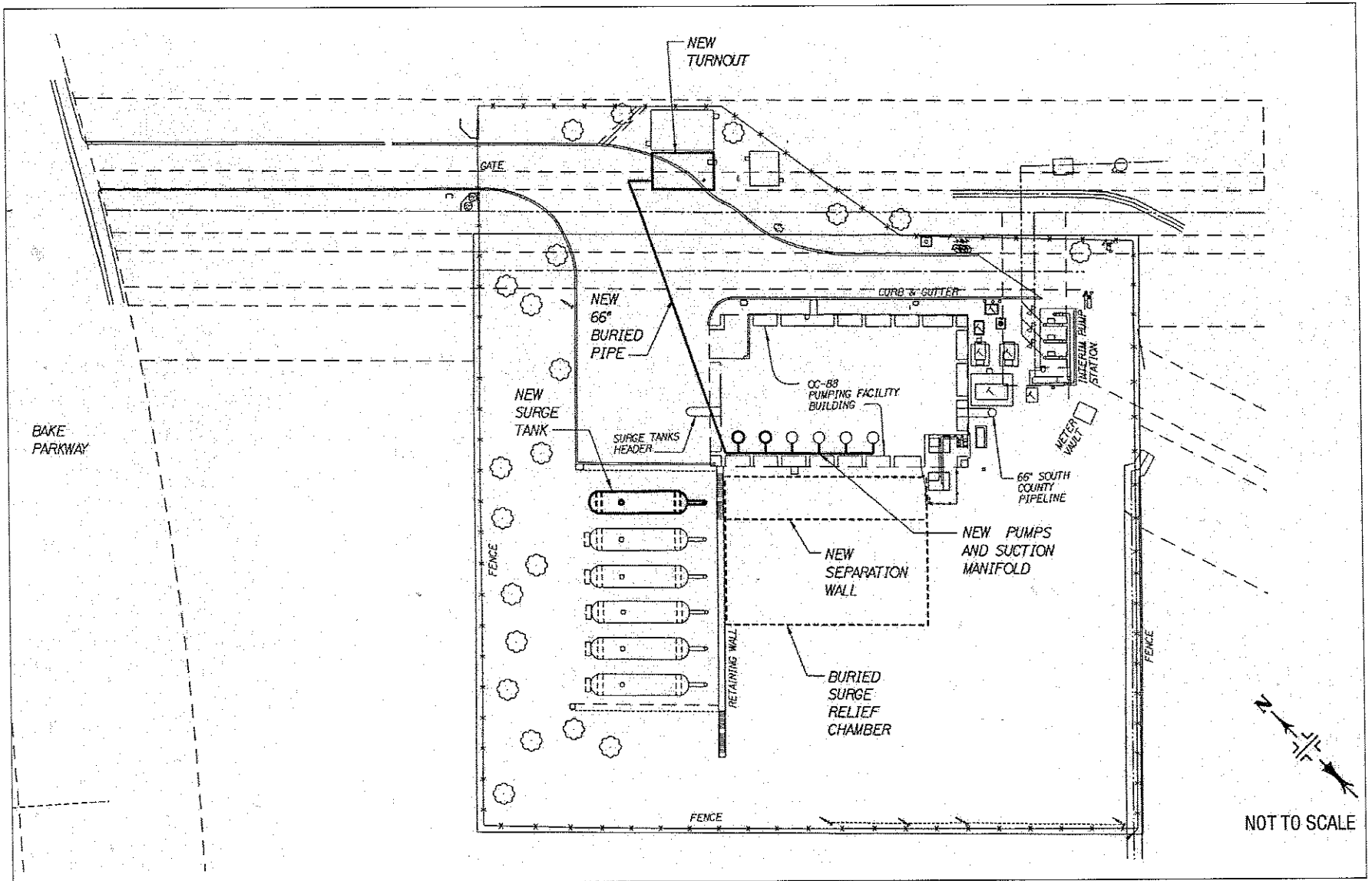


Figure 2 - OC-88 Energy Savings Modifications - Site Plan

The proposed Project would be designed and constructed in accordance with the Uniform Building Code. The proposed Project would not require the submission of a Storm Water Pollution Prevention Plan (SWPPP) to the State Water Resources Control Board because the combined area impacted during construction would be less than one acre. However, the contractor would implement appropriate erosion control measures, which might include providing storm drain outlet protection using straw bales, covering the excavation during evenings, maintaining slope stabilization, and preserving existing vegetation where possible. Implementation of these measures are described in the California Storm Water Best Management Practices Handbook. All work would be performed within Metropolitan's existing fenced property line.

The new 60-inch turnout would be located underground, adjacent to the existing turnout. A new concrete vault structure would be constructed to accommodate the new turnout, consisting of a 60-inch isolation butterfly valve and associated piping. The vault would be approximately 25 feet wide, 36 feet long, and 20 feet deep; the top of the vault would extend approximately 2 feet above ground.

The new 66-inch-diameter buried steel pipe would begin inside the new turnout and extend approximately 150 feet to the buried reservoir, where it would connect to a new 66-inch pump suction manifold. The depth of the pipe would range from approximately 13 feet at the new turnout to approximately 23 feet at the buried reservoir.

The suction barrels of the four existing pumps would be shortened by approximately 15 feet so they may be coupled to the new pump suction manifold. This work would be performed offsite by the pump manufacturer or by Metropolitan's machine shop at its facility in the city of La Verne in Los Angeles County. The existing pump with a fixed-speed drive would be converted to a variable-speed drive to match the other three existing pumps.

The buried reservoir, which has a capacity of approximately 2 million gallons, would be modified by building an internal wall to separate it into wet and dry sections. This would be accomplished by demolishing a portion of the northwestern wall of the reservoir to allow construction of the internal wall. The dry-section would house the new pump manifold and two new surge relief valves. The wet-section would serve as an emergency discharge chamber to prevent pressure surges from potentially damaging the AMP. The demolished portion of the reservoir wall would be reconstructed upon completion of the wet and dry sections of the reservoir.

An optional element in the project design is the addition of two new 1500 hp pumps to handle additional water flows during high water-demand periods and to serve as backup for the reliable service of the pipeline. The pump house was designed for seven pumps, four of which are currently installed. The new pumps would be installed in two of the empty bays, leaving one empty. Metropolitan anticipates that it will not need to use the seventh bay for approximately ten years.

The following types of construction equipment would be in operation at the Project site over the duration of activities: utility vehicles, excavator, backhoe, loader, crane, dump truck, hole ram, mechanical compactor, welding and mortar-lining equipment, asphalt equipment, dewatering pumps and hoses, lighting, and ventilation equipment. If during construction activities at the Project site, contaminated soils or suspected hazardous materials are encountered, such soils

would be stockpiled and disposed of in compliance with applicable hazardous materials regulations. Construction activities would follow applicable safety laws to ensure safe working conditions for construction workers. Appropriate health and safety procedures would be implemented. Fire containment and extinguishing equipment would be located onsite and would be accessible during construction activities. Construction workers would be trained to use the fire suppression equipment.

The proposed Project would be constructed in two phases to allow the continued operation of the facility while the new piping is being installed. The first phase, which would take place over a four-month period, would involve the installation of the turnout structure, the 66-inch-diameter pipe, and meter vault. The second phase, which would take place over a two-month period, would involve modifications to the buried reservoir and installation of the pump manifold, modified pumps, surge tank, and surge relief valves. A more detailed description of each phase of construction is provided below.

Upon completion of the construction and start-up activities related to the proposed Project, operation of the OC-88 Pump Station and routine maintenance of the facility would be the identical to pre-construction conditions, with the exception of the decreased energy consumption. Operational activities would comply with applicable Occupational Safety and Health Administration requirements.

#### **Phase I – Installation of Turnout, 66-inch Pipe, and Meter Vault (4 Months)**

Construction activities associated with this phase of the Project would include clearing and grubbing, trench excavation, shoring, welding, grading, concrete work, materials hauling and storage, lining and coating of the piping, and disinfection of the piping and surge tanks. The excavation trench would be cut through the existing paved driveway with a near vertical slope to an average depth of 20 feet. Approximately 1,000 cubic yards of soil would be excavated. Shoring would be used to stabilize the trench sidewalls, and, after excavation, new sand bedding material (approximately 400 cubic yards) would be placed in the trench to support the placement of the new pipeline segments. The new sand bedding material would be imported from a materials supplier within a 30-mile radius of the Project site. New pipeline segments would be welded together, placed on the prepared bedding, and the ends of the pipe segments would be welded to the tie-in points. The pipeline joints would be mortar lined/coated, and the tie-in points would be encased in reinforced concrete. Sand backfill would be placed to six inches above the top of the pipe. The sand backfill would be mechanically compacted or jetted in place with water. Native material would comprise the remaining backfill and this would be mechanically compacted. Any removed material intended for disposal would be removed via truck to the nearest appropriate landfill. Approximately ten trucks would be required to transport materials, including disposed material and construction material, to and from the site each day. Upon completion of installation, the line would be disinfected and readied for service. The surge tank would be installed in the existing tank farm area, which would be enlarged by building retaining walls on two sides to provide enough level ground to accommodate the additional equipment. Twenty construction workers, working for eight hours each day, would perform this phase of construction.

**Phase II – Modification of the Buried Reservoir and Installation of the Pump Manifold, Surge Tank, Modified Pumps, and Surge Relief Valves (2 Months)**

This part of the proposed Project consists of creating a dry well within the existing buried reservoir to house the new pump suction manifold and the two new surge relief valves, and installing the modified pumps and a surge tank. This activity would involve removing the soil and vegetation on top of the reservoir (approximately 2-ft deep with a maximum of 1,000 cubic yards of material), removing a portion of the concrete top and sidewall of the reservoir, construction of a new separation wall, and installation of the pump manifold and surge relief valves within the dry well. Construction activities associated with this phase of the Project would include clearing and grubbing, trench excavation, shoring, welding, concrete work, materials hauling and storage (approximately ten truck trips to and from the site each day), lining and coating of the piping, and disinfecting of the piping and tanks. Construction would occur for 24 hours each day during this phase. The work would be divided over three shifts with six to seven construction workers per shift.

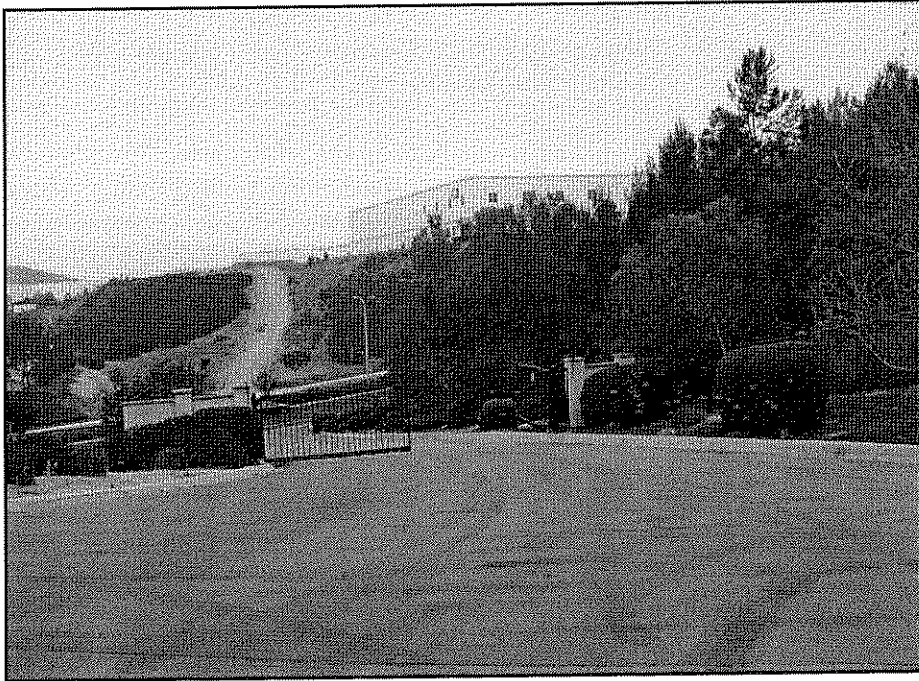
Figures 3 through 7 demonstrate the existing conditions at the Project site.

**REQUIRED APPROVALS**

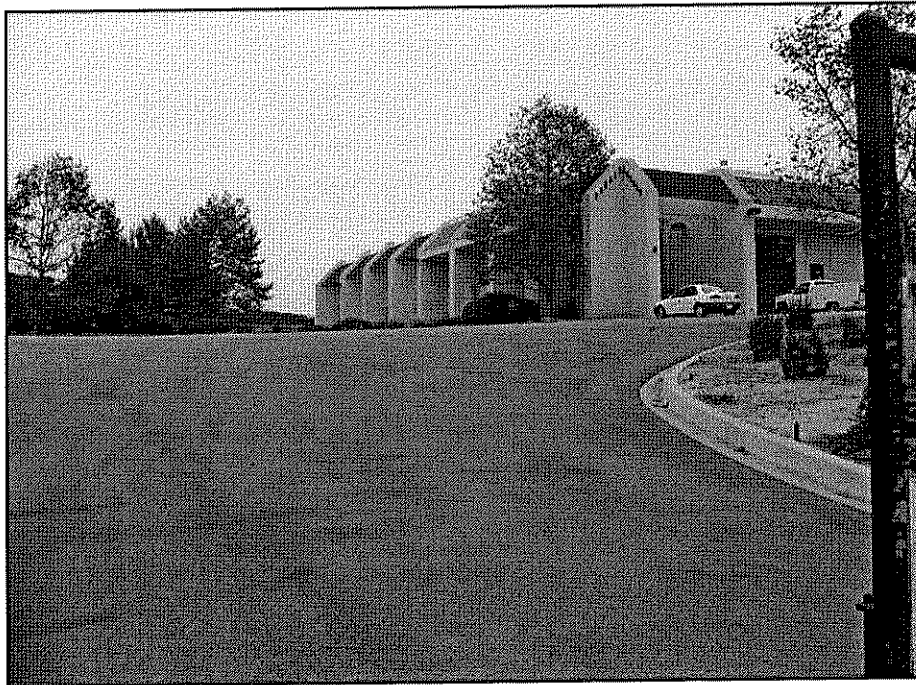
- ❖ City of Lake Forest: noise variance

**PROJECT SCHEDULE**

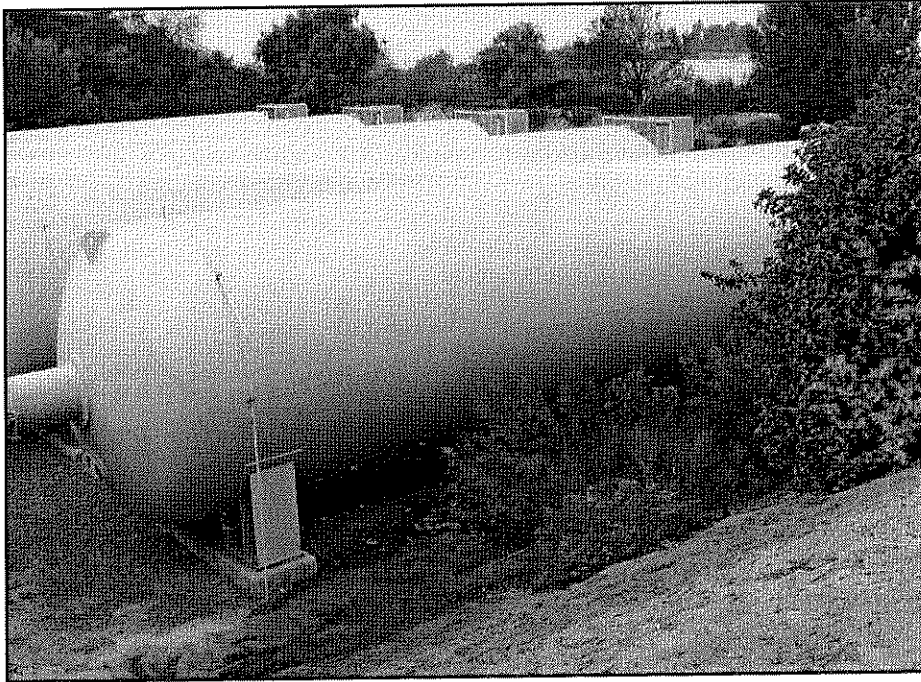
The proposed Project is tentatively planned for implementation between October 2002 and April 2003. Construction-related activities for the first phase of the Project would be conducted five days a week from 7:00 a.m. to 5:00 p.m. for approximately four months. During the proposed Project's second phase, which is the critical shutdown period for the pump station while the final modifications occur, construction would proceed 24 hours a day until the pumps were returned to service. This phase would take approximately two months to construct. Although the number of construction personnel would vary depending on the stage of construction, on average a 20-person working crew would be mobilized per day. Construction activities are anticipated to occur onsite for a period of six months.



**Figure 3 - View from Site Looking Northwest toward Bake Parkway**



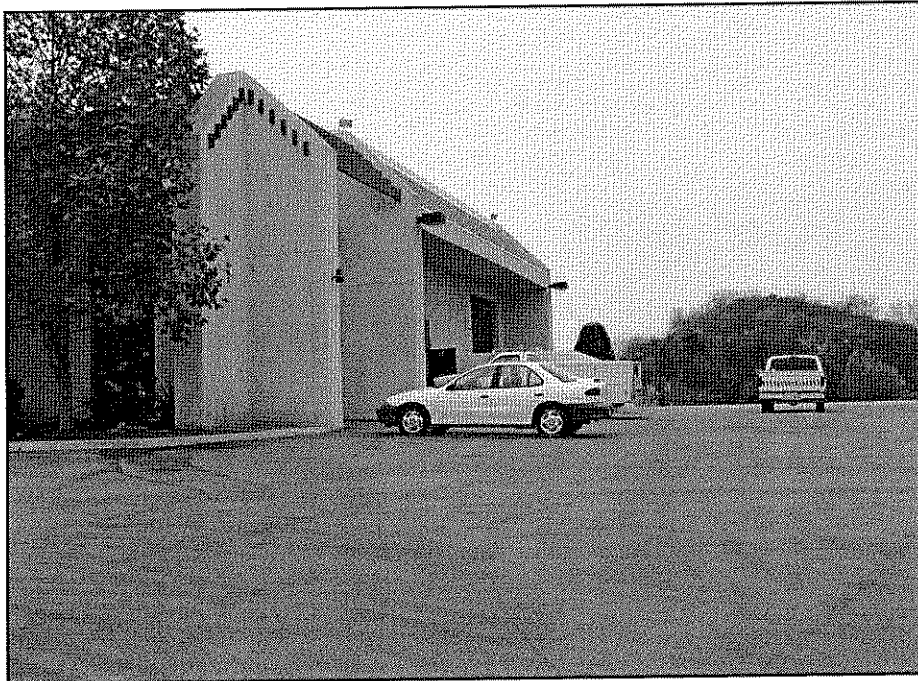
**Figure 4 - View from Bake Parkway Looking South toward Project Site**



**Figure 5 - View of Surge Tanks Located Onsite**



**Figure 6 - View of Existing Reservoir Located Onsite Looking South**



**Figure 7 - View of Western Portion of Project Site Looking Southwest**

## SECTION 2 INITIAL STUDY

The Mitigated Negative Declaration complies with Section 15071 of the Guidelines for the Implementation of the California Environmental Quality Act (State CEQA Guidelines). The following Initial Study, Environmental Checklist, and evaluation of potential environmental effects (see Section 3) were completed in accordance with Section 15063(d)(3) of the State CEQA Guidelines to determine if the proposed Project could have any potentially significant effect on the physical environment.

An explanation is provided for all determinations, including the citation of sources as listed in Section 5. A "No Impact" or "Less-than-significant Impact" determination indicates that the proposed Project will not have a significant effect on the physical environment for that specific environmental category. No environmental category was found to have a potentially significant adverse impact with implementation of the Project.

### INITIAL STUDY AND ENVIRONMENTAL CHECKLIST FORM

- |   |  |
|---|--|
| <b>1. Project Title:</b>                      | OC-88 Energy Savings Modifications Project   |
| <b>2. Lead Agency Name and Address:</b>       | The Metropolitan Water District of Southern California<br>700 N. Alameda Street<br>Los Angeles, CA 90012 |
| <b>3. Contact Person and Phone Number:</b>    | Laura Simonek, (213) 217-6242  |
| <b>4. Project Location:</b>                   | OC-88 Pump Station in the City of Lake Forest in Orange County   |
| <b>5. Project Sponsor's Name and Address:</b> | The Metropolitan Water District of Southern California<br>700 N. Alameda Street<br>Los Angeles, CA 90012 |
| <b>6. General Plan Designation:</b>           | Light Industrial <sup>1</sup>  |
| <b>7. Zoning:</b>                             | HT (High Technology) <sup>2</sup>  |
| <b>8. Description of Project:</b>             | See Project Description in Section 1 of the Mitigated Negative Declaration                               |

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<sup>1</sup> Aslami, Aziz. City of Lake Forest Community Development Department. Personal communication on 7 November 2001.

<sup>2</sup> Ibid.



**9. Surrounding Land Uses and Setting:**

See Project Location description in Section 1 of the Mitigated Negative Declaration

**10. Other agencies whose approval is required:**

- City of Lake Forest: noise variance

**Environmental Factors Potentially Affected:**

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages:

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agriculture Resources              | <input type="checkbox"/> Air Quality            |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology / Soils        |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality          | <input type="checkbox"/> Land Use / Planning    |
| <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Noise                              | <input type="checkbox"/> Population / Housing   |
| <input type="checkbox"/> Public Services               | <input type="checkbox"/> Recreation                         | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities / Service Systems   | <input type="checkbox"/> Mandatory Findings of Significance |   |

**DETERMINATION: (To be completed by lead agency)**

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Laura J. Simonek  
Signature

December 20, 2001  
Date

Laura J. Simonek  
Printed Name

The Metropolitan Water District of  
Southern California  
For

## SECTION 3 EVALUATION OF ENVIRONMENTAL IMPACTS

### I. AESTHETICS – Would the project:

Issues (and Supporting Information Sources):	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion:

- a) **No Impact.** No designated scenic vistas overlook the Project site.<sup>3</sup> The OC-88 Pump Station facility modifications would be located in an urban area of the city of Lake Forest in Orange County (See Figure 1). The Project site is bordered to the north and east by large industrial complexes, and to the west and south by undeveloped, small hills consisting of native vegetation.

All of the new structures would be either placed within existing structures or below grade, with the exception of the new turnout structure. The turnout structure would be predominantly below grade but is anticipated to extend two feet above ground. However, because this structure would be similar to the existing facilities nearby and is of relatively low height, it would not have an aesthetic impact. In addition, the surge tank would be installed below grade within an existing Metropolitan-owned and operated utility yard. Because the surge tank would be placed below grade and would not be visible from offsite, there would be no aesthetic impact.

Construction at the site would be short-term and would not disturb any scenic vistas. In addition, post-construction activities relating to routine maintenance and operations would

<sup>3</sup> Southern California Association of Governments, *Regional Transportation Plan, Programmatic Environmental Impact Report (EIR)*, 2001

not be visible from nearby sensitive receptors and would not result in an impact; therefore, there would be no impact to a scenic vista.

- b) **No Impact.** The Project site is not located within view of a state scenic highway.<sup>4</sup> All of the modifications would be located in previously disturbed areas, having no designated scenic resources. The proposed Project, including both construction and operations, would not affect a state-designated scenic highway.
- c) **Less-than-significant Impact.** The Project site is located in an urban setting, with two sides facing industrial complexes, and the other two sides facing vacant undeveloped areas with single family residences and Tamarisk Park located approximately 1,760 feet to the southeast. The proposed project entails the modification of an existing water diversion and pump station, involving the replacement of structures located under a paved driveway, and the modification of an existing underground reservoir to accommodate the installation of two new surge tanks. Some temporary aesthetic impacts may result during construction. The top half of the existing pump station structure is visible from the nearby residences and park facility. It is anticipated that construction vehicles performing work on the southeast portion of the Project site might be visible from the existing residences and park. However, construction activities on this portion of the site would be restricted to the second phase of construction. These activities are anticipated to last for approximately two to three weeks, in view of the residences, and not more than two months total. Upon completion of the construction activities, the ground/topography would be returned to pre-existing conditions. As such, the proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings; hence, a less-than-significant impact would result from Project construction.
- d) **Less-than-significant Impact with Mitigation.** The proposed Project would not create a new source of substantial light or glare. Instead, there would be minor and temporary light and glare as a result of nighttime lighting during construction, which might be visible from the nearby single-family residences and the local park. During the second phase of construction, which would extend for a two-month period, construction activities are anticipated to take place for 24 hours each day and would require nighttime lighting. However, most of the work to be performed at night would take place within the reservoir and would not require outdoor lighting. However, to prevent spillover of the nighttime lighting towards the single-family residences, incorporation of the following mitigation measure would ensure that potential nighttime lighting impacts during construction would be less than significant.

Operation of the modified OC-88 Pump Station would not result in any new sources of light and glare; hence, no impact relating to substantial light and glare would result from operation of the Project.

### Mitigation Measure

- I.1 Any nighttime lighting that shall not be located within the existing reservoir shall be pointed downward and away from the existing residences.*

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<sup>4</sup> Southern California Association of Governments, *Regional Transportation Plan, Programmatic Environmental Impact Report (EIR)*, 2001.

**Would the project:**

Issues (and Supporting Information Sources):

<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
---	--	---	----------------------

**II. AGRICULTURE RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

**a), b) & c) No Impact.** There are no agricultural resources or operations in the vicinity of the Project site.<sup>5</sup> The proposed Project would be conducted entirely within property owned by Metropolitan. Metropolitan would acquire no new lands for the Project; therefore, no lands enrolled under the Williamson Act would be impacted. No impacts to agricultural resources would occur.

<sup>5</sup> Southern California Association of Governments. *2001 Regional Transportation Plan PEIR*. February 2001.

**Would the project:**

	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
--	---------------------------------------	--	-------------------------------------	------------------

Issues (and Supporting Information Sources):

**III. AIR QUALITY:** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **No Impact.** The proposed Project would involve brief construction activities that would require several pieces of heavy equipment operating for up to six months at the site. As shown below, the operation of the proposed Project would not exceed South Coast Air Quality Management District (SCAQMD) thresholds. In addition, construction emissions for the proposed project would not exceed SCAQMD thresholds. Therefore, the proposed Project would be consistent with the Air Quality Management Plan (AQMP) last updated by the SCAQMD in 1996. There would be no impact, and no mitigation measures are necessary.

b) **Less-than-significant Impact.** The Project site is located in the South Coast Air Basin, which is designated as non-attainment for ozone (O<sub>3</sub>), carbon monoxide (CO), and

particulates (PM<sub>10</sub>). The air basin is classified as an attainment area for nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). SCAQMD is the regional agency empowered to regulate stationary and mobile air emission sources.

### Construction Emissions

Construction activities would consist of site clearing, excavation, soil stockpiling, construction of various structures, removal of material from the site, and trench backfilling. The proposed Project is anticipated to be completed within six months from the beginning of site clearing. Construction-related activities would occur 24 hours per day for the final two months of the construction period.

Construction exhaust emissions would be generated from construction equipment, earth movement and demolition activities, construction workers' commute, and construction material hauling for the entire construction period. The SCAQMD's *CEQA Air Quality Handbook* provides a methodology for estimating construction exhaust emissions based upon the number and types of equipment to be used and the duration of the construction period. This methodology was used to estimate construction exhaust emissions for the proposed Project. The SCAQMD's *CEQA Air Quality Handbook* presents emissions significance thresholds for construction activities as shown in Table 1.

**TABLE 1: CONSTRUCTION AIR EMISSIONS SIGNIFICANCE THRESHOLDS ESTABLISHED BY SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

	<u>Project Construction</u>
Carbon Monoxide (CO)	550 lbs. per day
Reactive Organic Compounds (ROC)	75 lbs. per day
Nitrogen Oxides (NO <sub>x</sub> )	100 lbs. per day
Particulates (PM <sub>10</sub> )	150 lbs. per day

Source: CEQA Air Quality Handbook, SCAQMD, 1993.

Construction activities associated with the proposed Project have been divided into the following two phases:

- Excavation, Trenching, and the Construction of Turnout, Pipe, and Meter Structure; and
- Modification of the Buried Reservoir, and the Installation of the Pump Manifold, Surge Tanks, Modified Pumps, and Surge Relief Valves.

Because construction of the proposed Project is divided into two phases, emissions estimates were also divided into two phases and calculated for each phase of construction based on assumptions for typical construction activity.

***Phase I – Excavation, Trenching, and the Construction of Turnout, Pipe, and Meter Structure***

For the first phase of construction, the calculations assume that construction activities for Phase I would occur over an 8-hour period each day five days a week for a period of approximately four months. Approximately eight pieces of equipment would operate for the entire day. These include:

- An excavator,
- Two backhoe/loaders,
- A crane,
- A hole ram,
- A compactor,
- A mortar mixer, and
- A welder.

However, the crane and the excavator would never be in operation on the same day. In addition, it is assumed that approximately ten truck trips to and from the site, traveling nine miles each way, and that 20 employees would commute 30 miles each way to and from the site each day.

Table 2 summarizes the air emissions to be expected during the first phase of construction activities. Estimated emissions are shown for days on which the crane would be in operation and for days on which the excavator would be in operation. Table 3 compares the maximum emissions that would occur during this phase of construction with SCAQMD thresholds.

**TABLE 2: ESTIMATED AIR EMISSIONS DURING THE FIRST PHASE OF CONSTRUCTION**

	Total Emissions*	
	W/ Excavator <u>lbs/day</u>	W/ Crane <u>lbs/day</u>
Carbon Monoxide (CO)	27.02	26.94
Reactive Organic Compounds (ROC)	12.06	11.98
Nitrogen Oxides (NO <sub>x</sub> )	87.69	86.81
Particulates (PM <sub>10</sub> )**	30.90	30.90

Source: Emission factors from EMFAC7G, 2001 Summer. These emissions factors are approved by the California Air Resources Board for planning purposes.

\*Includes the use of power poles instead of 25 hp gasoline-powered generator for 8 hr/day.

\*\*Includes PM<sub>10</sub> emissions for grading of 55 lbs/acre/day from Table 9-2 of the *CEQA Handbook*. Assumes fugitive dust emissions factor of 0.422 grams per mile on road.

Assumes 1 diesel-excavator, 2 backhoe/loaders, 1 diesel crane, 1 diesel hole ram, 1 diesel roller, 1 mortar mixer, and 1 welder. Also assumes 10 heavy-duty delivery trucks trips traveling 18 miles per trip, 20 employees at 60-mile round-trip commute.



**TABLE 3: COMPARISON OF FIRST PHASE EMISSIONS WITH SCAQMD THRESHOLDS**

	First Phase Max. Emissions lbs/day	SCAQMD Threshold lbs/day	Significant?
Carbon Monoxide (CO)	27.02	550	No
Reactive Organic Compounds (ROC)	12.06	75	No
Nitrogen Oxides (NOx)	87.69	100	No
Particulates (PM10)	30.90	150	No

***Phase II – Modification of the Buried Reservoir, and the Installation of the Pump Manifold and Surge Tanks***

For the second phase of construction, the calculations assume that the second phase of construction would occur within an eight-week time period. The calculations also assume that construction activities would occur over a 24-hour period. Approximately eight pieces of equipment would operate at different times during the day. These include:

- An excavator that would operate for 6 hours each day,
- Two backhoe/loaders that would operate for a maximum of 9.6 hours each day,
- A crane that would operate for up to 6 hours per day,
- A hole ram that would operate for up to 6 hours per day,
- A compactor that would operate for a maximum of 9.6 hours per day,
- A mortar mixer that would operate for up to 12 hours per day, and
- A welder that would operate for a maximum of 24 hours per day.

However, the crane and the excavator would never be in operation on the same day. In addition, it is assumed that approximately ten truck trips to and from the site, traveling nine miles each way, and that 20 employees would commute 30 miles each way to and from the site each day.

Table 4 summarizes the air emissions to be expected during the second phase of construction activities. Estimated emissions are shown for days on which the crane would be in operation and for days on which the excavator would be in operation. Table 5 compares the maximum emissions that are anticipated to occur during the second phase of construction with SCAQMD significance thresholds.

None of the estimated emissions from construction activities would exceed the SCAQMD thresholds of significance (as shown above in Tables 3 and 5). Temporary and less-than-significant impacts to air quality would be anticipated during either phase of construction of the proposed Project.

**TABLE 4: ESTIMATED AIR EMISSIONS DURING THE SECOND PHASE OF CONSTRUCTION**

	Total Emissions*	
	W/ Excavator <u>lbs/day</u>	W/ Crane <u>lbs/day</u>
Carbon Monoxide (CO)	36.74	36.68
Reactive Organic Compounds (ROC)	16.23	16.17
Nitrogen Oxides (NOx)	93.44	92.78
Particulates (PM10)**	30.22	30.22

Source: Emission factors from EMFAC7G, 2001 Summer. These emissions factors are approved by the California Air Resources Board for planning purposes.

\*Includes the use of power poles instead of 25 hp gasoline-powered generator for 24 hr/day.

\*\*Includes PM<sub>10</sub> emissions for grading of 55 lbs/acre/day from Table 9-2 of the *CEQA Handbook*. Assumes fugitive dust emissions factor of 0.422 grams per mile on road.

Assumes 1 diesel excavator, 2 backhoe/loaders, 1 diesel crane, 1 diesel hole ram, 1 diesel roller, 1 mortar mixer, and 1 welder. Also assumes 10 heavy-duty delivery trucks trips traveling 18 miles per trip, 20 employees at 60-mile round-trip commute.

**TABLE 5: COMPARISON OF SECOND PHASE EMISSIONS WITH SCAQMD THRESHOLDS**

	Second Phase Max. Emissions <u>lbs/day</u>	SCAQMD Threshold <u>lbs/day</u>	Significant?
Carbon Monoxide (CO)	36.74	550	No
Reactive Organic Compounds (ROC)	16.23	75	No
Nitrogen Oxides (NOx)	93.44	100	No
Particulates (PM10)	30.22	150	No

### Operational Emissions

Operational air emissions are generated from operational equipment, lighting, other electrical usage, natural gas usage, deliveries, and employee commute during day-to-day operations. The SCAQMD's *CEQA Air Quality Handbook* provides a methodology for estimating operational exhaust emissions based upon the amount of electricity and natural gas used and the number of employees and deliveries going to and from the Project site each day. This methodology was used to estimate operational exhaust emissions for the proposed

Project. The SCAQMD's *CEQA Air Quality Handbook* presents emissions significance thresholds for operational activities as shown in Table 6.

At the existing OC-88 Pump Station, most of the air emissions generated by the station are caused by electrical consumption for pumping purposes. The OC-88 Pump Station currently consumes approximately 16,600 megawatt-hours per year. However, upon completion of the proposed Project, the OC-88 Pump Station would consume approximately 7,900 megawatt-hours per year. Daily employee trips to and from the site would be approximately three trips per day, 60 miles roundtrip. Table 7 summarizes the existing air emissions and the air emissions that would occur during the operation of the modified OC-88 Pump Station. Table 8 compares the maximum emissions that would occur during operation of the proposed Project with SCAQMD significance thresholds.

**TABLE 6: OPERATIONAL AIR EMISSIONS SIGNIFICANCE THRESHOLDS ESTABLISHED BY SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

	<u>Project Construction</u>
Carbon Monoxide (CO)	550 lbs. per day
Reactive Organic Compounds (ROC)	55 lbs. per day
Nitrogen Oxides (NO <sub>x</sub> )	55 lbs. per day
Particulates (PM <sub>10</sub> )	150 lbs. per day

Source: CEQA Air Quality Handbook, SCAQMD, 1993.

**TABLE 7: ESTIMATED AIR EMISSIONS DURING OPERATION (EXISTING AND POST-CONSTRUCTION)**

	<b>Total Emissions</b>	
	Existing <u>lbs/day</u>	Post-Construction <u>lbs/day</u>
Carbon Monoxide (CO)	10.86	6.10
Reactive Organic Compounds (ROC)	0.56	0.32
Nitrogen Oxides (NO <sub>x</sub> )	52.50	25.08
Particulates (PM10)	1.82	0.87

Source: Emission factors from EMFAC7G, 2001 Summer. These emissions factors are approved by the California Air Resources Board for planning purposes.

None of the estimated emissions from operational activities would exceed the SCAQMD thresholds of significance (see Table 8). The proposed Project would lessen the air quality emissions in the region by 43.8% with respect to CO, 42.8% with respect to ROC, 52.2% with respect to NO<sub>x</sub>, and 52.2% with respect to PM10. Therefore, no adverse impact to air resources would result from post-construction operation of the proposed Project. The proposed Project would provide a beneficial impact to the environment by reducing current air emissions in the region.

**TABLE 8: COMPARISON OF PROJECTED OPERATIONAL EMISSIONS WITH SCAQMD THRESHOLDS**

	Operational Emissions lbs/day	SCAQMD Threshold lbs/day	Significant?
Carbon Monoxide (CO)	6.10	550	No
Reactive Organic Compounds (ROC)	0.32	55	No
Nitrogen Oxides (NO <sub>x</sub> )	25.08	55	No
Particulates (PM10)	0.87	150	No

- c) **No Impact.** As shown above, the proposed project would not involve a permanent increase in the emissions of criteria pollutants. The proposed Project would reduce current emissions to levels below those currently occurring. Therefore, the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment. No adverse impacts would occur.
- d) **No Impact.** The SCAQMD defines sensitive receptors as residential areas, schools, playgrounds, health care facilities, day care facilities, and athletic facilities. No sensitive receptors are located near any of the sites in unincorporated areas of Orange County. As shown in Tables 3, 5, and 8, the proposed Project would not violate established thresholds of significance for air emissions. The short-term construction activities would not promote traffic congestion that could create CO hot spots. In addition, the proposed Project would involve a reduction in operational emissions at the OC-88 Pump Station (see Table 7). Therefore, construction and operational activities would not impact local sensitive receptors.
- e) **No Impact.** The proposed Project would not generate odors that would impact neighboring land uses. No impact would be anticipated.

**IV. BIOLOGICAL RESOURCES – Would the project:**

Issues (and Supporting Information Sources):	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Discussion:

- a) **Less-than-significant Impact with Mitigation.** The proposed Project would involve modifications to an existing pump station that provides necessary water supplies to its member agencies in southern Orange County. The entire site is developed and paved. Construction activities would involve the removal of some of the pavement, the placement of an additional surge tank, construction of a turnout vault, and modifications to an existing reservoir.

A biological survey of the site was conducted on October 29, 2001, to determine the presence or potential presence of any threatened or endangered species (Keane Biological Consulting, 2001). Table 9 contains the list of special status species reported for the proposed Project area in the California Natural Diversity Database.

Although not observed during the survey, it is likely that the area surrounding the Project site supports the California gnatcatcher (gnatcatcher). The privately-owned parcels adjacent to the west and south sides of the OC-88 facility are undeveloped and vegetated with high-quality coastal sage scrub (CSS) vegetation.

As discussed in the project description, the concrete roof of the buried reservoir is covered with approximately 24 inches of soil, which was previously hydroseeded with and currently supports CSS vegetation. However, the relatively sparse and poor-quality of the CSS on the roof of the reservoir could not support any sensitive species, including gnatcatcher (Keane Biological Consulting, 2001). Still, it is assumed that the adjacent, native parcels are occupied with gnatcatcher, but that no direct impacts would occur to the species because construction would be confined to the existing, paved, disturbed pump station facility parcel.

**TABLE 9: SPECIAL STATUS SPECIES POTENTIALLY OCCURRING AT THE PROJECT SITE**

<b>Scientific Name</b> <b>Common Name</b>	<b>Status</b> <b>State/Federal</b>	<b>General Habitat</b>
<i>Birds</i>		
<i>Polioptila californica</i> California gnatcatcher	CSC/FT*	Coastal sage scrub
<i>Campylorhynchus brunneicapillus</i> Coastal cactus wren	CSC/FSC*	Coastal sage scrub

\*Status Codes

FT = Listed as Threatened by the Federal Government

FSC = Federal Species of Concern

CT = Listed as Threatened by the State of California

CSC = California species of special concern

§3503.5 = The California Fish and Game Code protects raptor nests and eggs

Source: California Natural Diversity Database, 2001.

The proposed Project would be considered an action adjacent to potential occupied habitat for the California gnatcatcher. The gnatcatcher is known to breed between February 15 and August 30 of each year. Any construction activities that would occur during the breeding season could result in disturbance to gnatcatchers, or in possible direct mortality of gnatcatchers through nest abandonment. Temporary construction-related disturbances may include displacement of animals due to construction noise and loss of use of foraging habitat. Phase 2 of the proposed Project would last for approximately eight weeks, of which two weeks may cause indirect noise and glare effects on the gnatcatcher, if it is present.

Actions involving species listed in Table 9 in or near the CSS habitat type are covered under the Orange County Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP), Central & Coastal Subregion (County of Orange Environmental Management Agency, 1996). Metropolitan is a participating landowner in the NCCP/HCP. Through its execution of a 1996 implementation agreement pursuant to the provisions of the NCCP/HCP and its contribution to the management endowment (Metropolitan, 1996), Metropolitan receives regulatory coverage for operations such as pipeline maintenance and repair. Regulatory coverage in the NCCP/HCP means that:

*“...future Incidental Take of target and identified species would be permitted for new development (planned activities) addressed in the NCCP/HCP and that no additional habitat mitigation for such Incidental Take under CESA and FESA would be required by local, state and federal agencies over and above the mitigation provided for by the NCCP/HCP.”* (NCCP/HCP Executive Summary, page 16)

Permitted operations and improvements to the AMP, of which the OC-88 Pump Station is a part, are specifically described on NCCP/HCP page II-362. The proposed Project would be considered covered under Metropolitan's regulatory coverage; therefore, impacts on sensitive species and habitats have already been mitigated to a less-than-significant level.

### **Mitigation Measures**

*IV.1 All construction (including laydown and spoils areas) shall be within non-CSS areas. A biological monitor shall be present during all vegetation removal activities to ensure that CSS habitat is not disturbed.*

*IV.2 The proposed actions shall be described, mapped, documented and submitted to the appropriate NCCP/HCP Authority (circulation of this Mitigated Negative Declaration will suffice to meet this mitigation).*

- b) No Impact.** All construction activities would be conducted within the existing boundaries of Metropolitan's property and rights-of-way. No work will occur within wilderness areas or areas of environmental concern as defined by regional land management agencies. Based on the biological survey and the existing conditions of the site, the proposed Project would have no effects on riparian or other sensitive habitats.

- c) **No Impact.** There are no wetlands located within the boundaries of the Project site (Keane Biological Consulting, 2001). No wetlands would be affected by the proposed Project.
- d) **No Impact.** The proposed Project would have no effect on wildlife movement or migration nor will it impede the use of nursery sites.
- e) & f) **No Impact.** The proposed Project is consistent with the provisions of the Orange County NCCP/HCP, Central & Coastal Subregion (County of Orange Environmental Management Agency, 1996). No additional mitigation measures are required other than what was identified in item IV.a.

**V. CULTURAL RESOURCES – Would the project:**

Issues (and Supporting Information Sources):	<i>Less Than Potentially Significant Impact</i>	<i>Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

**a), b), c) & d) No Impact.** There are no known historic, archaeological, or paleontological resources on the Project site. No religious or sacred uses are known to have occurred on the Project site; therefore, no impacts to human remains are expected. Additionally, there is little to no potential for impacts to cultural resources, since the Project area is in the existing Metropolitan property and no new soils would be removed.

One archaeological site was identified in the vicinity of the project site, and it has previously been developed and appropriately mitigated and monitored.<sup>6</sup> Although the potential is very low for uncovering buried archaeological or paleontologic resources, should such a situation

<sup>6</sup> Robinson, Mark. Applied EarthWorks. Personal communication on 18 December 2001.



arise at the Project site, then such resources would be assessed by a qualified archaeologist/paleontologist to determine the importance of the resource and the appropriate measures to implement such as avoidance or Phase II/Phase III cultural resource surveys. Therefore, no impact would occur.

**VI. GEOLOGY AND SOILS – Would the project:**

Issues (and Supporting Information Sources):	<i>Less Than Potentially Significant Impact</i>	<i>Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<p>e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

- a) **No Impact.** The proposed Project area is not located within an Alquist-Priolo Earthquake Fault Zone or within close proximity of other known faults in the area, as presented in the most recent Division of Mines and Geology Special Publication 42. The nearest active faults to the project area are the Chino-Central Ave Fault, which is located approximately 13 kilometers (km) north of the Project site, and the Newport Inglewood Fault, which is located approximately 17 km south of the Project site.<sup>7</sup>

The proposed Project, in and of itself, would not expose people or structures to potential impacts pertaining to seismic ground shaking. The proposed Project would be designed and constructed in accordance with the Uniform Building Code. According to the California Division of Mines and Geology (2001), the area of the proposed Project is not affected by liquefaction and landslide hazards. Therefore, this Project would have no impact on the risk of exposure of people relative to fault rupture and seismic ground shaking.

- b) **No Impact.** Geologic formations underlying the Project site consist of alluvium, Middle and Lower Pliocene Marine, Oligocene Non-Marine, Quaternary Non-Marine Terrace deposits. Excavation activities will occur within previously disturbed areas. Excavated soils would consist primarily of fill material and would be replaced in the excavations following the pipeline replacements. Stockpiled soils would be susceptible to erosion during rain events. No slopes would be exposed and soils would be stockpiled for a brief period. Upon completion of the proposed Project, the Project site would be repaved and landscaped. Operation of the proposed Project would not involve soil erosion or a loss of topsoil. Hence, no impact relating to substantial soil erosion or loss of top soil would occur with Project implementation.

- c) & d) **No Impact.** According to the California Division of Mines and Geology (2001), the area of the proposed Project is not affected by liquefaction and landslide hazards. The potential for soil liquefaction, lateral spreading and landslides is considered low. Since the Project site is previously developed it is not anticipated to be located on expansive soils which might create a hazard to life or property. Design and construction of the proposed Project would be performed in accordance with the California Uniform Building Code. Hence, there would be no impact.

<sup>7</sup> Division of Mines and Geology. *Maps of Known Active Fault Near-Source Zones in California and Portions of Nevada.* 1998.

- e) **No Impact.** The construction and operation of the proposed Project would not involve the use of septic tanks or alternative wastewater treatment disposal systems to handle wastewater generation. Therefore, no impacts would result from Project implementation.

**VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:**

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Would the project:**

Issues (and Supporting Information Sources):	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Discussion:**

**a), b) & c) No Impact.** Operation of the proposed Project would not require the use or storage of significant quantities of hazardous substances; therefore, no accidental explosion or major releases of hazardous substances would occur. The hazardous substances that would be used onsite would be limited to those for cleaning purposes and site maintenance, such as solutions, paint, etc. In addition, no schools are located within one-quarter mile radius of the Project site. The proposed Project would have no impact on public health and safety.

**d) No Impact.** The Project site is not on a governmental database of hazardous waste sites.<sup>8</sup> No known or suspected areas of hazardous materials contamination were identified at the site where the proposed Project will be carried out (MWDOC 1978; 1988). If unknown contaminated soils or suspected hazardous soils are encountered at the Project site, the contaminated soils would be stockpiled and disposed of in compliance with applicable hazardous materials regulations. Appropriate health and safety procedures would be implemented. Hence, there would be no impact.

**e) & f) No Impact.** The Project site is not located within the immediate vicinity of any airport or private airstrip; therefore, the proposed Project would not result in a safety hazard for people residing or working in the project area or visiting the project site. Hence, there would be no impact.

**g) No Impact.** The proposed Project would not interfere with a current emergency response plan or an emergency evacuation plan for local, state or federal agencies. All emergency procedures would be implemented within local, state, and federal guidelines during construction and operation of the proposed Project; therefore, there would be no impact.

**h) Less-than-significant Impact.** Implementation of the proposed construction could increase the potential risk of fire hazards from flammable brush, grass or trees. During construction,

<sup>8</sup> Young, Greg. Metropolitan Water District. Personal communication on 3 December 2001.

fire containment and extinguishing equipment would be located onsite and accessible during construction activities. Construction workers would be trained to use the fire suppression equipment. On-site landscaping would be controlled through trimming and watering so as to reduce fire hazard impacts. Therefore, the potential risk of fire is anticipated to be minimal and represents a less-than-significant impact.

### VIII. HYDROLOGY AND WATER QUALITY

#### - Would the project:

Issues (and Supporting Information Sources):	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place housing within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

**a), b), c), d) & e) No Impact.** The proposed Project would not violate water quality standards, nor would it impact groundwater quality or recharge rates. Depths to groundwater in the region are generally greater than 100 below ground surface.<sup>9</sup> Excavation depths would be a maximum of 25 feet below ground surface and would not encounter groundwater. The pipeline would be entirely underground. The improvements and operational activities would not alter existing drainage conditions. Hence, there would be no impacts.

**f) No Impact.** Exposed soil banks within the excavations as well as stockpiled soils could be potentially subject to erosion during rain events during construction. However, the contractor would implement appropriate erosion control measures, as part of the Project scope of work, which could include providing storm drain outlet protection using straw bales, covering the excavation during evenings, maintaining slope stabilization, and preserving existing vegetation where possible. Implementation of these measures is described in the California Storm Water Best Management Practices Handbook. Following construction, exposed fill could be subject to erosion. The amount of exposed fill from to the proposed Project would not be substantial because the area of construction is almost entirely paved.

The proposed Project would not require the submission of a Storm Water Pollution Prevention Plan (SWPPP) to the State Water Resources Control Board because the combined

<sup>9</sup> Department of Water Resources, website <http://well.water.ca.gov/> accessed June 28, 2001

area impacted during construction would be less than one acre. Nonetheless, implementation of best management practices as mentioned previously will further minimize the less-than-significant potential impact to local receiving waters.

**g), h), i) & j) No Impact.** The Project site would not be located within a 100-year floodplain as designated by the Federal Emergency Management Agency (FEMA).<sup>10</sup> The proposed Project would not involve constructing any housing. The Project would not be subject to tsunami or seiche wave inundation because it is not situated near a large body of water. Also, the Project site is not subject to mudslides. No impacts would occur.

**IX. LAND USE AND PLANNING – Would the project:**

Issues (and Supporting Information Sources):	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** The Project site is located within Metropolitan's existing property. All construction and operational activities involved with this proposed Project would occur within the vicinity of the OC-88 Pump Station. The proposed Project would not result in any division of an established community. Hence, there would be no impact.
- b) **No Impact.** The Project site is located in the city of Lake Forest and is zoned "High Technology." The proposed improvements to the OC-88 Pump Station would not create any new uses that do not already exist within the Project area and would not conflict with general plan or zoning designations. No impact would occur.
- c) **No Impact.** The proposed Project represents a continuation of existing use. All the sites are within the NCCP/HCP as discussed in the biology section text. Mitigation Measures IV.1

<sup>10</sup> Federal Emergency Management Agency. *Flood Insurance Maps*. Map No. 06059C0050F. November 3, 1993.

and IV.2 are proposed to be in compliance with the NCCP/HCP. Therefore, the proposed Project would not conflict (i.e., no impact) with any conservation plans.

**X. MINERAL RESOURCES – Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a) & b) **No Impact.** There are no known mineral resources located within the boundaries of the OC-88 Project site.<sup>11</sup> Therefore, the proposed Project would not result in the loss of availability of any mineral resource that would be of future value; therefore, there is no potential for impacts.

**XI. NOISE – Would the project result in:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<sup>11</sup> California Division of Mines and Geology. *Open File Report 94.15.*



**Would the project:**

Issues (and Supporting Information Sources):	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

**a) & d) Less-than-significant Impact with Mitigation Incorporation.** Construction activities associated with the proposed Project would generate short-term construction noise. As mentioned above, construction of the proposed Project has been divided into two phases. The first phase would involve four months of construction activities for eight hours each day. The second phase of construction would involve two months of construction activities for 24 hours each day.

The Lake Forest Municipal Code, adopted from the Orange County Code, provides special provisions to avoid construction noise impacts that are applicable to anticipated activities at the Project site.

*“Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday.”<sup>12</sup>*

<sup>12</sup> Lake Forest Municipal Code §11.16.020 (§ 4-6-7. e Special Provisions )

In addition, the city of Lake Forest similarly limits construction activities during the nighttime hours in unincorporated areas of the county unless a variance has been obtained prior to commencement of construction activities.<sup>13</sup> Construction activities that would take place during the final two months of construction would occur 24 hours per day.

The following mitigation measures will ensure that noise generated from the proposed Project would result in a less-than-significant impact.

### Mitigation Measures

- XI.1 Construction during the first phase of construction shall be limited to the hours of 7:00 a.m. to 8:00 p.m., Monday through Friday.*
- XI.2 Prior to construction, a Variance shall be obtained from the City of Lake Forest Health Officer, to allow 24-hour construction during the second phase of construction pursuant to the Lake Forest Municipal Code Section 11.16.030 (Enforcement).*
- b) **No Impact.** Local sensitive receptors include residential areas located approximately 1,760 feet southeast of the proposed Project site in the city of Lake Forest. Based on the distance between the project site and the nearest sensitive receptors and considering the types of construction equipment (which do not include a pile driver), it is anticipated that the proposed Project would not generate excessive levels of groundborne noise or vibration.
- c) **No Impact.** As part of the proposed Project, two additional pumps may be installed at the OC-88 Pump Station. The two new pumps would operate for 24 hours each day as do the existing pumps at the station. It is anticipated that these pumps would contribute to the existing noise level at the Project site.

Four separate noise measurements were taken at and around the proposed Project site to determine the existing level of ambient noise and the degree to which the OC-88 Pump Station contributes to ambient noise levels. As shown in Table 10, existing noise levels at residences and other sensitive receptors (Tamarisk Park) in the vicinity of the OC-88 Pump Station are in compliance with the noise standards of the city of Lake Forest Municipal Code Section 11.16.020 (see Table 11).

Upon completion of the proposed Project, noise generated by the OC-88 Pump Station is anticipated to increase up to 3 dBA due to the operation of the new pumps. Therefore, assuming that the additional pumps would increase noise levels within 50 feet of the OC-88 Pump Station, which is equivalent to the southwest corner of the reservoir, noise levels at the Project site upon completion are anticipated to be approximately 54.1 dBA. In general, sound pressure levels decrease about 6 dBA with each doubling of distance from fixed point sources, such as the OC-88 Pump Station. Therefore, noise generated at the OC-88 Pump Station would decrease to 48.1 dBA at 100 feet and 42.1 dBA at 200 feet. Since the nearest sensitive receptors are located at a distance greater than 500 feet from the OC-88 Pump Station, noise generated by the proposed Project would not be audible from those sensitive receptors.

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<sup>13</sup> *Lake Forest Municipal Code § 11.16.030 (Enforcement)*

**TABLE 10: NOISE MONITORING RESULTS**

Noise Monitoring Location	Average Noise Level (Leq)	Maximum Noise Level (Lmax)	OC-88 Audible?
Southwest corner of reservoir (approx. 50 ft. from pump station)	51.1	52.9	Yes
At project site (approx. 50 ft. northeast of pump station)	58.4	66.4	Yes
Northwest corner of Tamarisk Park (closest to pump station)	45.1	52.0	No
Southwest corner of Tamarisk Park (10 ft. from Closest residences with direct line of sight to OC-88)	44.0	53.6	No

Source: Metrosonics db-3080 noise meter used on November 15, 2001. Taken between 11:00 a.m. and 2:00 p.m. Weather was mostly sunny with a 5-10 mph wind and approximately 75 degrees Fahrenheit.

**TABLE 11: CITY OF LAKE FOREST NOISE STANDARDS**

	Time Period	Maximum Noise Level (Leq)
1 – all residential property	7:00 a.m. – 10:00 p.m.	55 dB(A)
1 – all residential property	10:00 p.m. – 7:00 a.m.	50 dB(A)

Source: City of Lake Forest Municipal Code Section 11.16.01.

Therefore, based on current noise levels at the nearest sensitive receptors and the distance from OC-88 to those sensitive receptors, the proposed Project would not subject any residences to noise levels in excess of the noise standards of the city of Lake Forest. The proposed Project would not subject people to substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Therefore, there is no impact expected with project implementation.

e) & f) **No Impact.** The proposed Project would not subject people to excessive noise or be located within two miles of an airport. Marine Corps Air Station El Toro is located in the vicinity of the proposed Project (approximately one mile west of the Project site) but is currently not in operation and is not planned for operation in the near future. No impacts would occur.

Issues (and Supporting Information Sources):	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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**XII. POPULATION AND HOUSING – Would the project:**

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:**

a), b), & c) **No Impact.** The proposed Project would involve improvements to an existing pump station to reduce energy demand and costs. As a result of the proposed Project, the OC-88 Pump Station may increase water deliveries to MWDOC from 100 cfs to 150 cfs. However, this change in capacity would correspond with a similar decrease of flows through other AMP service connections and reduced flows through service connections on Metropolitan’s East Orange County Feeder No. 2 pipeline, which provides water to the same area as the OC-88 Pump Station. Therefore, there would be no net increase in water delivery capacity. No housing would be constructed, demolished, or replaced as a result of the proposed Project. No impact would occur.

**XIII. PUBLIC SERVICES – Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** The proposed Project involves the improvement of an existing water pump station. The site is fenced and gated. During construction activities, additional fire suppression equipment will be located onsite to prevent potential construction-related fires. The proposed Project would not involve the placement or construction of any new structures or facilities which would require additional fire protection upon completion. Therefore, no impacts to fire or police services would occur. Similarly, the construction site would not be located near a school or within a park. No impacts would occur.

**XIV. RECREATION – Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

**Would the project:**

- a) **No Impact.** The proposed Project would involve improvements to an existing pump station along the AMP. The proposed Project would not increase demand for neighborhood or regional parks. No impact to recreation is anticipated.
- b) **No Impact.** The proposed Project would entail construction of replacement facilities at the OC-88 pump station along the AMP. No recreational facilities are included or required by the proposed Project. Therefore, the proposed Project would not impact the environment through the construction of additional recreational facilities.

**XV. TRANSPORTATION / TRAFFIC – Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

**a) & b) No Impact.** The proposed Project would not result in increased traffic trips because the improvements would be conducted on an existing facility. The Project area is mostly urban with some nearby residential and commercial uses. Traffic on the local access streets is not expected to be operating at unacceptable levels during morning and evening peak hours. Construction activities would add short-term traffic (approximately 20 construction workers and ten delivery trucks commuting to and from the Project site each day) to the construction areas to accommodate worker commutes and deliveries. However, upon completion of the proposed Project, it is anticipated that no additional trips would be required for the OC-88 Pump Station during the performance of operational activities. Therefore, since the additional trips would only occur during the six-month construction period, no impacts to level of service for local intersections would occur.

**c) No Impact.** The proposed Project would not alter air traffic patterns. No impact would occur.

**d) No Impact.** The proposed Project would not alter the current roadway designs. All work would be performed on existing Metropolitan property. No impact would occur.

**e) No Impact.** Construction activities resulting from the proposed Project would be conducted entirely on the existing OC-88 Pump Station site. Adequate emergency access to all portions of the Project site would be maintained and included in the construction safety plan for the

proposed Project. Therefore, the proposed Project would have no impact on emergency access.

- f) **No Impact.** The proposed Project would not cause inadequate parking capacity. All vehicles would be accommodated onsite. No impact would occur.
- g) **No Impact.** The proposed Project would be short-term and does not involve alternative transportation policies. Therefore, it would not conflict with adopted policies supporting alternative transportation. No impact would occur.

**XVI. UTILITIES AND SERVICE SYSTEMS –  
Would the project:**

Issues (and Supporting Information Sources):	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



**Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

**a), b), c), d), & e) No Impact.** The proposed Project would reduce energy costs associated with the operation of the OC-88 Pump Station; no new uses would be created. In the event that the two additional pumps would be installed onsite, the pump station capacity would increase water deliveries to MWDOC from 100 cfs to 150 cfs. However, this increase in capacity would correspond with a reduced flows through other AMP service connections and reduced flows through service connections on Metropolitan’s East Orange County Feeder No. 2 pipeline so as to provide more efficient and cost-effective water service. Ultimately, there would be no increase in capacity.

During construction, the ability to pump water through the AMP via the OC-88 pump station would be maintained by staggering construction activities. Therefore, no temporary water supply impact would occur. The proposed Project would not place additional demands nor affect public utilities, particularly wastewater treatment facilities, water facilities, and storm drain systems in the area. No impacts would occur.

**f) & g) No Impact.** The proposed Project would not require new solid waste facilities. The OC-88 Pump Station is owned by Metropolitan. Construction debris would be recycled or transported to the nearest landfill site and disposed of appropriately. The amount of debris generated during implementation of the proposed Project would not impact the landfill capacity. Additionally, since the proposed Project would not create any new types of uses, no impacts to solid waste generation at the completion of improvement activities would occur.

**XVII. MANDATORY FINDINGS OF SIGNIFICANCE**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining				

**Would the project:**

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<p>levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulative considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Less-than-significant Impact.** As described in this Mitigated Negative Declaration, the proposed Project would not have the potential to substantially degrade the quality of the environment. The proposed Project would be conducted entirely within a previously disturbed area of the pump station. No new structures would be constructed outside of Metropolitan property. The proposed Project’s construction methods would avoid impacts to sensitive habitats and species and would be in compliance with the Central-Coastal Orange County NCCP/HCP. The proposed Project would involve improvements to an existing facility and would not affect important examples of California history. Therefore, implementation of the proposed Project would have a less-than-significant impact.

**b) No Impact.** The proposed Project would not have cumulative impacts. The Project site is located within property owned entirely by Metropolitan. No foreseeable cumulative impacts in conjunction with potential local or regional projects are anticipated. All of the work would be conducted within a six-month period. Impacts to the local environment discussed in this Mitigated Negative Declaration would be minimal and short-term in nature. Therefore, the impacts of construction and operations associated with the proposed Project in the area would not be cumulatively considerable.

**c) No Impact.** The Mitigated Negative Declaration assesses the potential impacts of the proposed Project. Construction activities will follow applicable safety laws to ensure safe working conditions for construction workers. Operational activities will comply with applicable Occupational Safety and Health Administration requirements. Hence, the proposed Project would not cause substantial adverse effects on human beings, either directly or indirectly.

## SECTION 4 LIST OF MITIGATION MEASURES

### AESTHETICS

- I.1 Any nighttime lighting that shall not be located within the existing reservoir shall be pointed downward and away from the existing residences.*

### BIOLOGICAL RESOURCES

- IV.1 All construction (including laydown and spoils areas) shall be within non-CSS areas. A biological monitor shall be present during all vegetation removal activities to ensure that CSS habitat is not disturbed.*
- IV.2 The proposed actions shall be described, mapped, documented and submitted to the appropriate NCCP/HCP Authority (circulation of this Mitigated Negative Declaration will suffice to meet this mitigation).*

### NOISE

- XI.1 Construction during the first phase of construction shall be limited to the hours of 7:00 a.m. to 8:00 p.m., Monday through Friday.*
- XI.2 Prior to construction, a Variance shall be obtained from the City of Lake Forest Health Officer, to allow 24-hour construction during the second phase of construction pursuant to the Lake Forest Municipal Code Section 11.16.030 (Enforcement).*

## SECTION 5 REFERENCES

The following documents were used in the preparation of this Mitigated Negative Declaration. Unless otherwise noted in the reference, they are available for public review at Metropolitan's headquarters office at 700 North Alameda Street, Los Angeles, CA 90012-2944.

- Aslami, Aziz. City of Lake Forest Community Development Department. Personal Communication on November 7, 2001.
- California Department of Fish and Game. *California Natural Diversity Database*. Version 2.1.2G. September 5, 2001.
- California Division of Mines and Geology. *Maps of Known Active Fault Near-Source Zones in California and Portion of Nevada*. 1998. (Filed with Environmental Science Associates)
- California Division of Mines and Geology. *Open File Report 94.15*. (May be viewed at Division of Mines and Geology – Los Angeles Office)
- City of Lake Forest. *Lake Forest Municipal Code*.
- County of Orange Environmental Management Agency. 1996 *Natural Community Conservation Plan & Habitat Conservation Plan for the County of Orange, Central & Coast Subregion*. July 17, 1996.
- Department of Water Resources. <http://well.water.ca.gov/> Accessed on June 28, 2001.
- Division of Mines and Geology, California Department of Conservation. *Maps of Known Active Fault Near-Source Zones in California and Portions of Nevada*. 1998. (Filed with Environmental Science Associates)
- Federal Emergency Management Agency. *Flood Insurance Maps*. Map No. 06059C0050F. November 3, 1993. (Filed with Environmental Science Associates)
- Keane Biological Consulting. Correspondence regarding biological survey. 2001. (Printouts and copies of all correspondence are maintained in a hard copy file with Metropolitan's Environmental Planning Unit)
- Metropolitan Water District of Southern California. "Memo from General Manager to Board of Directors." June 25, 1996.
- Municipal Water District of Orange County, 1978. *Santiago Aqueduct Parallel Reaches 2-6 EIR*.
- Robinson, Mark. Applied EarthWorks. Personal communication on 18 December 2001.
- South Coast Air Quality Management District. *Air Quality Management Plan*. 1996.
- South Coast Air Quality Management District. *CEQA Air Quality Handbook*. 1993.

Southern California Association of Governments. *Regional Transportation Plan 2001 Update, Programmatic Environmental Impact Report (PEIR)*, 2001. (Filed with Environmental Science Associates)

State of California, 2001. *California Environmental Quality Act, CEQA Guidelines. Amended, Chapter 1312, Statutes of 1976 and Chapter 1230, Statutes of 1994.*

Young, Greg. Metropolitan Water District of Southern California. Personal Communication on December 3, 2001.

**SECTION 6**  
**AGENCIES CONTACTED**

City of Lake Forest Department of Community Development

South Coast Air Quality Management District

## **SECTION 7 LIST OF PREPARERS**

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**APPENDIX A**

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**AIR EMISSIONS CALCULATIONS WORKSHEETS**

## ESTIMATED EMISSIONS FROM EXCAVATION/TRENCHING/CONSTRUCTION OF TURNOUT, PIPE, AND METER STRUCTURE

Excavation/Trenching/Construction of Turnout, Pipe, and Meter Structure Inputs										
Total Days Allowed for Site Clearance and Grading (Days)				86.00		Haul Truck Trips			67	
Total Site Acres (Acres)				2.80		Average Trip Length One Way			9	
Number of Employees				20		Number of Haul Trips Per Day			10	
Average Trip Length One Way POV (Miles)				30		Haul Truck Trip Miles Per Day			180	
Total Work Hours Per Day (Hours/Day)				8						
Total Number of Each Equipment Used for This Phase of Construction										
	1	2	1	1	1	1	1	1	1	
horsepower	175	120	175	120	175	25	25	10		
% of a day	100	100	100	100	100	100	100	100		
	excavator	backhoe/loader	crane	hole ram	roller	generator	mortar mixer	welder		
	diesel	diesel	diesel	diesel	diesel	gasoline	diesel	diesel		

Note: Crane and Excavator would never be operating simultaneously. Reflected in Calculations below.

Assumptions Used in EMFAC7G					
Chosen Speed	25	% LDA	70.00%	Daily VMT Haul Truck	180
% Cold Start	10.00%	% LDT	30.00%		
% Hot Start	90.00%	Season	summer	Daily VMT Auto	1200

EMFAC7G Inputs			
	LDA	LDT	HDD
	Grams/Mile	Grams/Mile	Grams/Mile
Carbon Monoxide (CO)	4.2	4.49	8.38
Reactive Organic Compounds (ROC)	0.24	0.29	1.51
Nitrogen Oxides (NOx)	0.44	0.7	6.71
Sulfur Oxides (SOx)	NA	NA	NA
Particulates (PM10)	0	0	0.41

Source: EMFAC7G

Vehicle Exhaust Emissions from POV				
Site Clearance & Grading Workers POV Emissions				
	EMFAC7G	Cold Start	Hot Start	
	Emissions	Emissions	Emissions	
	Factor.	Factor.	Factor.	Est. Emissions
	Grams/Mile	Grams/Mile	Grams/Mile	lbs/day
Carbon Monoxide (CO)	4.29	3.28	1.89	11.79
Reactive Organic Compounds (ROC)	0.26	0.30	0.19	0.72
Nitrogen Oxides (NOx)	0.47	0.19	0.52	1.29
Sulfur Oxides (SOx) *	0.05	0.00	0.00	0.13
Particulates (PM10)	0.01	0.00	0.00	0.03

Source: Emission Factors From EMFAC7G at 70 Deg Fahrenheit at Chosen Speed

\*Source: Table A9-5-L SCAQMD CEQA Handbook

Haul Truck Trips Emissions			Total PM10 Fugitive Dust Emissions from Grading		
	EMFAC7G Emissions Factor. Grams/Mile	Est. Emissions lbs/day	Acres Per Day of Clearing		0.5
Carbon Monoxide (CO)	9.98	3.96			Est. Emissions (lbs/day)
Reactive Organic Compounds (ROC)	1.51	0.60			
Nitrogen Oxides (NOx)	9.25	3.67			
Sulfur Oxides (SOx)	0.30	0.12			
Particulates (PM10)	0.64	0.25			
			Air Pollutant	Emission Factor	
			Particulates (PM10) Grading	55.00 Lb/Acres/day	27.50
			Source: Table A9-9 of the CEQA Air Quality Handbook		
			*Source: ARB Recommended		

Construction Equipment Emissions							
	excavator diesel lbs/hour	backhoe/loader diesel lbs/hour	crane diesel lbs/hour	hole ram diesel lbs/hour	roller diesel lbs/hour	Total Emissions lbs/day w/o crane	Total Emissions lbs/day w/o excavator
Carbon Monoxide (CO)	0.12	0.11	0.11	0.08	0.12	4.32	4.24
Reactive Organic Compounds (ROC)	0.23	0.22	0.22	0.15	0.23	8.40	8.32
Nitrogen Oxides (NOx)	2.12	1.98	2.01	1.40	2.08	76.48	75.60
Sulfur Oxides (SOx)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Particulates (PM10)	0.05	0.05	0.05	0.03	0.05	1.84	1.84

Source: ARB Inventory Publication MO99 32.5 App.B

Construction Equipment Emissions (continued)					Total Emissions lbs/day
	generator gasoline lbs/hour	mortar mixer diesel lbs/hour	welder diesel lbs/hour		
Carbon Monoxide (CO)	2.04	0.01	0.01		6.95
Reactive Organic Compounds (ROC)	0.89	0.00	0.00		2.35
Nitrogen Oxides (NOx)	0.00	0.02	0.02		6.24
Sulfur Oxides (SOx)	0.00	0.00	0.00		0.57
Particulates (PM10)	0.01	0.00	0.00		0.31

Source: CEQA Handbook Table A9-8-A

Total PM10 Fugitive Dust Emissions from Demo			
Air Pollutant	Emission Factor		Est. Emissions (lbs/day)
Particulates (PM10) Demo	0.00	Lb/cubic feet	0.97

Source: Table A9-9 of the CEQA Air Quality Handbook

\*Source: ARB Recommended

Total Air Emissions from This Phase of Construction Including POV, Fugitive Dust, and Construction Equipment (w/o crane)			
Air Pollutant	Est. Emissions (lbs/day)	SCAQMD Thresholds (lbs/day)	Significant?
Carbon Monoxide (CO)	27.02	550	NO
Reactive Organic Compounds (ROC)	12.06	75	NO
Nitrogen Oxides (NOx)	87.69	100	NO
Sulfur Oxides (SOx)	0.82	150	NO
Particulates (PM10)	30.90	150	NO

Source: EMFAC7G and SCAQMD CEQA Air Quality Handbook

**Total Air Emissions from This Phase of Construction Including POV, Fugitive  
Dust, and Construction Equipment (w/o excavator)**

Air Pollutant	Est. Emissions	SCAQMD	
	(lbs/day)	Thresholds (lbs/day)	Significant?
Carbon Monoxide (CO)	26.94	550	NO
Reactive Organic Compounds (ROC)	11.98	75	NO
Nitrogen Oxides (NOx)	86.81	100	NO
Sulfur Oxides (SOx)	0.82	150	NO
Particulates (PM10)	30.90	150	NO

Source: EMFAC7G and SCAQMD CEQA Air Quality Handbook

**ESTIMATED EMISSIONS FROM MODIFICATION OF RESERVOIR, INTALLATION OF PUMP SUCTION MANIFOLD AND SURGE TANKS**

Excavation/Trenching/Construction of Turnout, Pipe, and Meter Structure Inputs								
Total Days Allowed for Construction Activities (Days)	43.00	Haul Truck Trips	67					
Total Site Acres (Acres)	2.80	Average Trip Length One Way	9					
Number of Employees	20	Number of Haul Trips Per Day	10					
Average Trip Length One Way POV (Miles)	30	Haul Truck Trip Miles Per Day	180					
Total Work Hours Per Day (Hours/Day)	24							
Total Number of Each Equipment Used for This Phase of Construction								
	1	2	1	1	1	1	1	1
horsepower	175	120	175	120	175	25	25	10
% of a day	25	40	25	25	40	100	50	100
	excavator	backhoe/loader	crane	hole ram	compactor	generator	mortar mixer	welder
	diesel	diesel	diesel	diesel	diesel	gasoline	diesel	diesel

Note: Crane and Excavator would never be operating simultaneously. Reflected in Calculations below.

Assumptions Used in EMFAC7G			
Chosen Speed	25	% LDA	70.00%
% Cold Start	10.00%	% LDT	30.00%
% Hot Start	90.00%	Season	summer
Daily VMT Haul Truck		180	
Daily VMT Auto		1200	
EMFAC7G Inputs			
	LDA	LDT	HDD
	Grams/Mile	Grams/Mile	Grams/Mile
Carbon Monoxide (CO)	4.2	4.49	8.38
Reactive Organic Compounds (ROC)	0.24	0.29	1.51
Nitrogen Oxides (NOx)	0.44	0.7	6.71
Sulfur Oxides (SOx)	NA	NA	NA
Particulates (PM10)	0	0	0.41

Source: EMFAC7G

Vehicle Exhaust Emissions from POV				
Site Clearance & Grading Workers POV Emissions				
	EMFAC7G Emissions Factor	Cold Start Emissions Factor	Hot Start Emissions Factor	Est. Emissions
	Grams/Mile	Grams/Mile	Grams/Mile	lbs/day
Carbon Monoxide (CO)	4.29	3.28	1.89	11.79
Reactive Organic Compounds (ROC)	0.26	0.30	0.19	0.72
Nitrogen Oxides (NOx)	0.47	0.19	0.52	1.29
Sulfur Oxides (SOx) *	0.05	0.00	0.00	0.13
Particulates (PM10)	0.01	0.00	0.00	0.03

Source: Emission Factors From EMFAC7G at 70 Deg Fahrenheit at Chosen Speed

\*Source: Table A9-5-L SCAQMD CEQA Handbook

Haul Truck Trips Emissions			Total PM10 Fugitive Dust Emissions from Grading		
	EMFAC7G Emissions Factor	Est. Emissions	Acres Per Day of Clearing		
	Grams/Mile	lbs/day	0.5		
Carbon Monoxide (CO)	9.98	3.96			
Reactive Organic Compounds (ROC)	1.51	0.60			
Nitrogen Oxides (NOx)	9.25	3.67			
Sulfur Oxides (SOx)	0.30	0.12			
Particulates (PM10)	0.64	0.25			
			Air Pollutant	Emission Factor	Est. Emissions (lbs/day)
			Particulates (PM10) Grading	55.00 Lb/Acres/day	27.50

Source: Table A9-9 of the CEQA Air Quality Handbook

\*Source: ARB Recommended

Construction Equipment Emissions							
	excavator	backhoe/loader	crane	hole ram	compactor	Total Emissions	Total Emissions
	diesel	diesel	diesel	diesel	diesel	lbs/day	lbs/day
	lbs/hour	lbs/hour	lbs/hour	lbs/hour	lbs/hour	w/o crane	w/o excavator
Carbon Monoxide (CO)	0.12	0.11	0.11	0.08	0.12	4.46	4.40
Reactive Organic Compounds (ROC)	0.23	0.22	0.22	0.15	0.23	8.71	8.65
Nitrogen Oxides (NOx)	2.12	1.98	2.01	1.40	2.08	79.10	78.44
Sulfur Oxides (SOx)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Particulates (PM10)	0.05	0.05	0.05	0.03	0.05	1.92	1.92

Source: CEQA Handbook Table A9-8-A

Construction Equipment Emissions (continued)					
	generator	mortar mixer	welder		Total Emissions
	gasoline	diesel	diesel		lbs/day
	lbs/hour	lbs/hour	lbs/hour		
Carbon Monoxide (CO)	2.04	0.01	0.01		16.54
Reactive Organic Compounds (ROC)	0.89	0.00	0.00		6.20
Nitrogen Oxides (NOx)	0.00	0.02	0.02		9.37
Sulfur Oxides (SOx)	0.00	0.00	0.00		1.20
Particulates (PM10)	0.01	0.00	0.00		0.52

Source: CEQA Handbook Table A9-8-A

Total Air Emissions from This Phase of Construction Including POV, Fugitive Dust, and Construction Equipment (w/o crane)				
Air Pollutant	Est. Emissions (lbs/day)	SCAQMD		
		Thresholds (lbs/day)	Significant?	
Carbon Monoxide (CO)	36.74	550	NO	
Reactive Organic Compounds (ROC)	16.23	75	NO	
Nitrogen Oxides (NOx)	93.44	100	NO	
Sulfur Oxides (SOx)	1.45	150	NO	
Particulates (PM10)	30.22	150	NO	

Source: EMFAC7G and SCAQMD CEQA Air Quality Handbook

Total Air Emissions from This Phase of Construction Including POV, Fugitive Dust, and Construction Equipment (w/o excavator)				
Air Pollutant	Est. Emissions (lbs/day)	SCAQMD		
		Thresholds (lbs/day)	Significant?	
Carbon Monoxide (CO)	36.68	550	NO	
Reactive Organic Compounds (ROC)	16.17	75	NO	
Nitrogen Oxides (NOx)	92.78	100	NO	
Sulfur Oxides (SOx)	1.45	150	NO	
Particulates (PM10)	30.22	150	NO	

Source: EMFAC7G and SCAQMD CEQA Air Quality Handbook

# EXISTING AND ESTIMATED EMISSIONS FROM OPERATION

Operation Inputs				
Total Site Acres (Acres)			2.80	
Number of Employees			3	
Average Trip Length One Way POV (Miles)			30	
Assumptions Used in EMFAC7G				
Chosen Speed	25	% LDA	70.00%	
% Cold Start	10.00%	% LDT	30.00%	
% Hot Start	90.00%	Season	summer	
Daily VMT Auto	180			
EMFAC7G Inputs				
	LDA	LDT	HDD	
	Grams/Mile	Grams/Mile	Grams/Mile	
Carbon Monoxide (CO)	4.2	4.49	8.38	
Reactive Organic Compounds (ROC)	0.24	0.29	1.51	
Nitrogen Oxides (NOx)	0.44	0.7	6.71	
Sulfur Oxides (SOx)	NA	NA	NA	
Particulates (PM10)	0	0	0.41	

Source: EMFAC7G

Vehicle Exhaust Emissions from POV				
Loading Workers POV Emissions				
	EMFAC7G Emissions Factor.	Cold Start Emissions Factor.	Hot Start Emissions Factor.	Est. Emissions lbs/day
	Grams/Mile	Grams/Mile	Grams/Mile	
Carbon Monoxide (CO)	4.29	3.28	1.89	1.77
Reactive Organic Compounds (ROC)	0.26	0.30	0.19	0.11
Nitrogen Oxides (NOx)	0.47	0.19	0.52	0.19
Sulfur Oxides (SOx) *	0.05	0.00	0.00	0.02
Particulates (PM10)	0.01	0.00	0.00	0.00

Source: Emission Factors From EMFAC7G at 70 Deg Fahrenheit at Chosen Speed

\*Source: Table A9-5-L SCAQMD CEQA Handbook

Existing Electrical Emissions		
Current Electrical Usage	Kilowatt-hours	
	16600000	
	Est. Emissions (lbs/megawatt-hr)	Total Electrical Emissions lbs/day
Air Pollutant		
Carbon Monoxide (CO)	0.20	9.10
Reactive Organic Compounds (ROC)	0.01	0.45
Nitrogen Oxides (NOx)	1.15	52.30
Sulfur Oxides (SOx)	0.12	5.46
Particulates (PM10)	0.04	1.82

Source: Table A9-11 SCAQMD CEQA Handbook

<b>Projected Electrical Emissions</b>		
	<u>Kilowatt-hours</u>	
Current Electrical Usage		7900000
	<u>Est. Emissions</u>	<u>Total Electrical Emissions</u>
<u>Air Pollutant</u>	(lbs/megawatt-hr)	lbs/day
Carbon Monoxide (CO)	0.20	4.33
Reactive Organic Compounds (ROC)	0.01	0.22
Nitrogen Oxides (NOx)	1.15	24.89
Sulfur Oxides (SOx)	0.12	2.60
Particulates (PM10)	0.04	0.87

Source: Table A9-11 SCAQMD CEQA Handbook

<b>Total Air Emissions from Existing OC-88 Facility</b>			
	<u>Est. Emissions</u>	<u>SCAQMD</u>	
	(lbs/day)	<u>Thresholds</u>	<u>Significant?</u>
<u>Air Pollutant</u>		(lbs/day)	
Carbon Monoxide (CO)	10.86	550	NO
Reactive Organic Compounds (ROC)	0.56	55	NO
Nitrogen Oxides (NOx)	52.50	55	NO
Sulfur Oxides (SOx)	5.48	150	NO
Particulates (PM10)	1.82	150	NO

Source: EMFAC7G and SCAQMD CEQA Air Quality Handbook

<b>Total Air Emissions from Proposed Project</b>			
	<u>Est. Emissions</u>	<u>SCAQMD</u>	
	(lbs/day)	<u>Thresholds</u>	<u>Significant?</u>
<u>Air Pollutant</u>		(lbs/day)	
Carbon Monoxide (CO)	6.10	550	NO
Reactive Organic Compounds (ROC)	0.32	55	NO
Nitrogen Oxides (NOx)	25.08	55	NO
Sulfur Oxides (SOx)	2.62	150	NO
Particulates (PM10)	0.87	150	NO

Source: EMFAC7G and SCAQMD CEQA Air Quality Handbook



Attachment 5  
(27 pages)

Responses to Comments

Board Letter 8-2

March 12, 2002 Board Meeting

**OC-88 Energy Savings  
Modifications Project  
Mitigated Negative Declaration**

**SCH# 2001121117**

**Responses to  
Comments**

**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA**

**Metropolitan Report No. 1178**

**February 2002**

## **1.0 RESPONSES TO COMMENTS**

### **1.1 INTRODUCTION**

Public review of the Mitigated Negative Declaration (MND) for the OC-88 Energy Savings Modifications Project began on December 24, 2001, and ended on January 22, 2002. In all, seven comment letters were received from seven public agencies. Each of the letters, their written comments, together with the Metropolitan response to it, is included immediately following this page. The letters are arranged in the order indicated below.

### **1.2 LIST OF AGENCIES COMMENTING ON THE MITIGATED NEGATIVE DECLARATION**

#### **FEDERAL AGENCIES**

- A. United States Department of the Interior, Fish and Wildlife Service

#### **STATE AGENCIES**

- B. Governor's Office of Planning and Research, State Clearinghouse
- C. Department of Transportation

#### **REGIONAL AGENCIES**

- D. Southern California Association of Governments
- E. Municipal Water District of Orange County

#### **LOCAL AGENCIES**

- F. County of Orange
- G. City of Lake Forest

# Comment Letter A



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Ecological Services  
Carlsbad Fish and Wildlife Office  
2730 Loker Avenue West  
Carlsbad, California 92008

In Reply Refer To:  
FWS-OR-2263.1

Mr. Christopher Mundhenk  
The Metropolitan Water District of Southern California  
Corporate Resources Group, Environmental Planning Unit  
P.O. Box 54153  
Los Angeles, California 90054-0153

JAN 25 2002

Re: Mitigated Negative Declaration (MND) for the OC-88 Energy Savings Modifications Project, Orange County, California

Dear Mr. Mundhenk:

This letter is provided in response to the above referenced MND for the OC-88 Energy Savings Modifications Project received by our office on December 27, 2001. We offer the following comments regarding project associated biological impacts based on our review of the MND and Metropolitan Water District's (MWD) participation in the Orange County Central and Coastal Subregions Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP).

The OC-88 Energy Savings Modifications Project involves installation of an underground pipeline, surge tank, turnout vault and appurtenant structures to modify equipment and operations at an existing pump station and reservoir in the vicinity of Bake Parkway and Commercentre Drive in the City of Lake Forest. The existing pump station and reservoir are connected to the Allen McCulloch Pipeline (AMP) and fall outside the boundaries of the NCCP/HCP Reserve System. The site is bordered to the north and east by industrial complexes and to the south and west by undeveloped natural areas of high quality coastal sage scrub vegetation that may support the federally threatened coastal California gnatcatcher (*Polioptila californica californica*, "gnatcatcher")(MND, p. 26).

All construction is proposed to be contained within the fenced boundaries of the pump station and reservoir facility. A majority of impacts will be confined to developed (e.g., paved) areas. However, a portion of the project will involve removing soil and restored coastal sage scrub vegetation from the top of the buried reservoir to allow for installation of surge relief valves, modified pumps and a surge tank. The areal extent of restored coastal sage scrub that will be removed to accommodate project construction is not reported.

To analyze biological impacts of the project, Keane Biological Consultants (KBC) performed a single site visit on October 29, 2001 (MND, p. 25). Apparently, no formal written documentation reporting the results of that site assessment was prepared, nor did the field

biologist review the MND for accuracy (per telephone conversations of William Miller of the U.S. Fish and Wildlife Service with Kathy Keane of KBC on January 3, 2002, and Delaine Shane of MWD on January 15, 2002).

The MND reports that coastal sage scrub vegetation on the surface of the reservoir is of low quality and its removal is unlikely to result in direct impacts to the gnatcatcher because the vegetation is not likely to support nesting gnatcatchers during the breeding season. However, the MND notes that because adjoining habitat is potentially occupied by the gnatcatcher, construction activities during the breeding season could result in disturbance to gnatcatchers or in the possible direct mortality of gnatcatcher offspring through nest abandonment. The MND also lists as potential temporary construction-related impacts the displacement of gnatcatchers due to construction noise and loss of foraging habitat.

As a NCCP/HCP participating landowner, MWD obtained a section 10(a)(1)(B) incidental take permit that authorizes MWD to remove coastal sage scrub vegetation in association with MWD's Central Pool Augmentation and Water Quality Project (CPA), and in association with construction of Phase III of the AMP (NCCP/HCP, p. II-362). Potential impacts and mitigation associated with CPA were previously described in an Environmental Impact Report prepared prior to adoption of the NCCP/HCP. These impacts were anticipated entirely within the Reserve and included the permanent loss of 6 acres of coastal sage scrub and 13 acres of non-coastal sage scrub, and the temporary loss of 37 acres of coastal sage scrub and 60 acres of non-coastal sage scrub. Potential impacts associated with Phase III of the AMP are to be addressed pursuant to applicable provisions of the California Environmental Quality Act and National Environmental Policy Act (NCCP/HCP, p. II-362). However, the NCCP/HCP anticipated Phase III of the AMP would involve temporary impacts to 2.3 acres of coastal sage scrub and 17.9 acres of non-coastal sage scrub within the Reserve, and 12.8 acres of coastal sage scrub and 49.2 acres of non-coastal sage scrub outside the Reserve. Although the OC-88 pump station is a service connection on the AMP, it is not clear whether the proposed project is a component of the Phase III project.

The following are our specific comments and recommendations:

1. Because the OC-88 pump station is outside the Reserve System, the proposed project is appropriately regarded as a "Planned Activity" by a Participating Landowner that was previously mitigated through participation in the NCCP/HCP. The NCCP/HCP anticipated that NCCP Signatory Cities would record/compile Identified Species, Coastal Sage Scrub and Covered Habitat Impacts within their jurisdiction annually and report those losses and associated mitigation to the County of Orange to enable the County to compile subregional data for transmittal to the California Department of Fish and Game and U.S. Fish and Wildlife Service (Wildlife Agencies). Signatory Cities are also obligated to ensure that NCCP construction-related minimization measures set forth in the NCCP/HCP Environmental Impact Report/Environmental Impact Statement (EIR/EIS) are enforced. However, because MWD is itself a California Environmental Quality Act (CEQA) Responsible Agency, the procedures for reporting take and ensuring compliance with the construction-related minimization measures are not clearly articulated in the NCCP/HCP. Proposed MND Mitigation Measures IV.1 and IV.2

appear to address these issues.

1  
(cont'd)

Mitigation Measure IV.1 states that “[A] biological monitor shall be present during all vegetation removal activities to ensure that CSS [coastal sage scrub] habitat is not disturbed”(MND, p. 26). However, this contradicts statements in the MND that excavation of the buried reservoir to accommodate project construction will involve the removal of restored coastal sage scrub vegetation.

2

Based on the information in the MND, it appears likely that gnatcatchers are not nesting immediately within the vegetation on the reservoir surface. However, the adjacency of high quality coastal sage scrub vegetation that likely supports resident gnatcatchers (MND, p. 25) along with statements in the MND that construction-related impacts could lead to nest abandonment and/or loss of foraging area for the gnatcatcher suggests there is a potential for take to occur in association with the proposed project. We, therefore, recommend that MWD implement the NCCP/HCP EIR/EIS Minimization/Mitigation Measures for Construction Related Impacts (enclosed) in association with the proposed project.

3

Mitigation Measure IV.2 states that “[T]he proposed impacts shall be described, mapped, documented and submitted to the appropriate NCCP/HCP Authority (circulation of this Mitigated Negative Declaration will suffice to meet this mitigation).” However, the MND fails to identify who the appropriate NCCP/HCP Authority is and includes contradictory statements regarding whether there will be any impacts to coastal sage scrub vegetation or the gnatcatcher.

4

As a standard practice for projects within the Central and Coastal Orange County subregions that are outside the Reserve System, we concur with the approach suggested in the MND that MWD should record/compile Identified Species, Coastal Sage Scrub and Covered Habitat Impacts and report those losses to the appropriate NCCP/HCP Authority. The appropriate NCCP/HCP Authority is the County of Orange, but we would appreciate that correspondence copies of such reporting be provided to the Nature Reserve of Orange County and the Wildlife Agencies.

5

We appreciate MWD’s prior efforts to restore coastal sage scrub vegetation on the reservoir surface and do not believe it would be appropriate to consider impacts to this area as “new” in the context of MWD’s take authorization. Because the proposed project is on the surface of an existing infrastructure facility that may periodically require maintenance, the proposed impacts are analogous to those associated with operations and maintenance of infrastructure within the Reserve System and should be treated as such. Specifically, biological resources that will be impacted should be documented and a revegetation plan should be prepared and implemented once the reservoir is re-buried.

6

Finally, the Identified Species and habitat loss reporting requirement was intended to provide the County of Orange a ready source for summarizing habitat impacts in association with implementation of the NCCP/HCP. We believe that presenting this

7

information in the context of an environmental document does not meet the intent of this reporting requirement and, therefore, request that all such reporting be provided in a separate letter report that summarizes project impacts. Our records indicate that MWD has followed this practice for previous projects.

7  
(cont'd)

2. As a reminder, Section 5.9, Infrastructure Policies, of the NCCP/HCP contains a set of policies to guide the siting, construction, and operation of permitted infrastructure (e.g., water lines, reservoirs, pump stations, pressure control facilities, access roads), both existing and proposed, within the NCCP/HCP Reserve System. For operation and maintenance activities that result in disturbances outside existing cleared areas or construction of new facilities the project proponent is responsible for coordinating construction activities with the public reserve owner/manager to facilitate conformance with NCCP/HCP policies (pp. II-358 to II-360). For future projects we recommend that MWD contact the Executive Director of the Nature Reserve of Orange County, Lyndine McAfee, to help identify who the appropriate public reserve owner/manager is for this coordination. The NCCP/HCP Implementation Agreement (I.A.) also requires the party proposing development of infrastructure facilities within the Reserve System to confer with the Wildlife Agencies (I.A. pp. 125-126) to help identify measures that can minimize impacts to sensitive biological resources.

8

3. Based on a discussion with the project biologist, Kathy Keane, and our review of the biological analysis presented in the MND, it appears that the potential biological impacts associated with the project were accurately summarized. However, in general, for projects in natural areas we do not regard an undocumented single day site visit outside most flowering plants blooming period as adequate for disclosing potential biological impacts. For future CEQA documentation associated with Phase III of the AMP or other specific siting of infrastructure in the Reserve System, we request that more detailed assessments of biological resources be provided that are based on protocols for NCCP Participants to help ensure that the siting of infrastructure minimizes impacts to coastal sage scrub, other habitat and NCCP/HCP Target Species.

9

Thank you for the opportunity to comment on the above referenced MND, and for MWD's continued participation in the NCCP/HCP. Should you have any questions or comments please do not hesitate to contact Annie Hoecker of our office at (760) 431-9440.

Sincerely,



*for* Karen A. Evans  
Assistant Field Supervisor

Enclosure (1)

cc: Lyndine McAfee, NROC  
Bill Tippets, CDFG  
Laura Simonek, MWD

- payment of a mitigation fee to the NCCP/HCP management entity to assure the maintenance of net habitat value by means of habitat restoration/enhancement within the Reserve System and/or acquisition of CSS habitat lands to be added to the Reserve System.

### 7.5.3 Construction-Related Minimization Measures

The NCCP/HCP proposes that certain construction-related minimization measures be required to assure that development/construction within areas recommended to be authorized for incidental take of CSS (including allowed uses within the Reserve System) be undertaken in a manner that minimizes impacts on gnatcatchers presently using or in close proximity to the habitat to be converted. These minimization measures would also be expected to benefit other Identified CSS species.

For *participating landowners*, each landowner will comply with the "construction-related minimization measures" as part of compliance with the landowner's individual Section 10(a) permit pursuant to the Implementation Agreement. For *non-participating landowners*, the construction-related minimization measures will be integrated with standard brush-clearance/grading permits at the local government level by signatory local governments as specified in the Implementation Agreement.

Since the construction-related minimization measures are based on measures required in prior gnatcatcher Section 7 consultations and Section 10 HCPs, these measures are determined to constitute significant minimization/mitigation of impacts of uses proposed to be allowed in or near CSS occupied by gnatcatchers.

#### MINIMIZATION/MITIGATION MEASURES - CONSTRUCTION RELATED IMPACTS

1. To the maximum extent practicable, no grading of CSS habitat that is occupied by nesting gnatcatchers will occur during the breeding season (February 15 through July 15). It is expressly understood that this provision and the remaining provisions of these "construction-related minimization measures," are subject to public health and safety considerations. These considerations include unexpected slope stabilization, erosion control measure and emergency facility repairs. In the event of such public health and safety circumstances, landowners or public agencies/utilities will provide USFWS/CDFG with the maximum practicable notice (or such notice as is specified in



the NCCP/HCP) to allow for capture of gnatcatchers, cactus wrens and any other CSS Identified Species that are not otherwise flushed and will carry out the following measures only to the extent as practicable in the context of the public health and safety considerations.

2. Prior to the commencement of grading operations or other activities involving significant soil disturbance, all areas of CSS habitat to be avoided under the provisions of the NCCP/HCP, shall be identified with temporary fencing or other markers clearly visible to construction personnel. Additionally, prior to the commencement of grading operations or other activities involving disturbance of CSS, a survey will be conducted to locate gnatcatchers and cactus wrens within 100 feet of the outer extent of projected soil disturbance activities and the locations of any such species shall be clearly marked and identified on the construction/grading plans.
3. A monitoring biologist, acceptable to USFWS/CDFG will be on site during any clearing of CSS. The landowner or relevant public agency/utility will advise USFWS/CDFG at least seven (7) calendar days (and preferably fourteen (14) calendar days) prior to the clearing of any habitat occupied by Identified Species to allow USFWS/CDFG to work with the monitoring biologist in connection with bird flushing/capture activities. The monitoring biologist will flush Identified Species (avian or other mobile Identified Species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities. If birds cannot be flushed, they will be captured in mist nets, if feasible, and relocated to areas of the site be protected or to the NCCP/HCP Reserve System. It will be the responsibility of the monitoring biologist to assure that Identified bird species will not be directly impacted by brush-clearing and earth-moving equipment in a manner that also allows for construction activities on a timely basis.
4. Following the completion of initial grading/earth movement activities, all areas of CSS habitat to be avoided by construction equipment and personnel will be marked with temporary fencing other appropriate markers clearly visible to construction personnel. No construction access, parking or storage of equipment or materials will be permitted within such marked areas.
5. In areas bordering the NCCP Reserve System or Special Linkage/Special Management areas containing significant CSS identified in the NCCP/HCP for protection, vehicle transportation routes between cut-and-fill locations will be restricted to a minimum

number during construction consistent with project construction requirements. Waste dirt or rubble will not be deposited on adjacent CSS identified in the NCCP/HCP for protection. Preconstruction meetings involving the monitoring biologist, construction supervisors and equipment operators will be conducted and documented to ensure maximum practicable adherence to these measures .

6. CSS identified in the NCCP/HCP for protection and located within the likely dust drift radius of construction areas shall be periodically sprayed with water to reduce accumulated dust on the leaves as recommended by the monitoring biologist.

#### **7.5.4 Conclusions Regarding Consistency of the NCCP/HCP Minimization/Avoidance Measures and Mitigation Measures with the NCCP Conservation Guidelines**

For the reasons set forth in this chapter and in Chapters 5 and 8, the Central and Coastal NCCP/HCP provides for a Reserve System, including specifically designed reserves protecting core habitat and connectivity features assuring species interchange within and between reserves, and a comprehensive Adaptive Management Program determined to be fully consistent with the substantive requirements of the NCCP Conservation Guidelines. Regarding the assurances of assemblage of the NCCP/HCP Reserve System, the findings for the Implementation Agreement state that:

*“Based on the deed restrictions, provisions of dedication offers, commitments pursuant to adopted CEQA mitigation measures and other encumbrances against those current and future public lands which are to be included in the Reserve System and Special Linkage Areas as established by the NCCP/HCP, USFWS and CDFG have determined that the habitat protection afforded under those encumbrances and by commitments of lands for Reserve System or Special Linkage purposes pursuant to this Agreement constitute commitments in perpetuity to uses consistent with the purposes of the NCCP/HCP as set forth herein” (Implementation Agreement, Section 3.0(j)).*

Each of the encumbrances and commitments cited in the above Finding as the basis for the “commitments in perpetuity” determination is reviewed in detail in the Final EIR/EIS Response to Comments:

**A. UNITED STATES DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE, LETTER DATED JANUARY 25, 2002**

- Response 1: Comment noted. As clarification, Metropolitan is serving as the lead agency under CEQA for the proposed Project.
- Response 2: To clarify the statement made by the commentor, Mitigation Measure IV.1 was included in the MND to ensure that construction of the proposed Project would not involve the removal of the high-quality CSS located in the immediate vicinity of the Project site. Mitigation Measure IV.1 does not apply to the marginal, non-occupied CSS habitat that exists on top of Metropolitan's existing buried reservoir that may be removed during Project construction.
- Response 3: As a signatory of the NCCP/HCP, Metropolitan is committed to the implementation of and adherence to the policies, requirements, and recommendations of the NCCP/HCP. Therefore, as part of this commitment, Metropolitan would implement the applicable Minimization/Mitigations Measures for Construction Related Impacts with respect to issues relating to CSS and gnatcatcher (see USFWS attachment).
- Response 4: The MND was forwarded to the County of Orange, which is the appropriate NCCP/HCP Authority. With respect to alleged contradictory statements, see Response 2.
- Response 5: Comment noted. Metropolitan will provide the County of Orange, USFWS, and CDFG with any relevant correspondence associated with the proposed project.
- Response 6: USFWS properly noted that this facility may require periodic maintenance. Therefore, the buried reservoir may not be suitable for revegetation.
- Response 7: A report, which documents the actual impacts of the proposed Project, will be prepared and sent to the County of Orange, USFWS, and CDFG under separate cover, upon completion of Project construction.
- Response 8: Comment noted.
- Response 9: Comment noted.



Gray Davis  
GOVERNOR

Comment Letter B  
STATE OF CALIFORNIA

GOVERNOR'S OFFICE of PLANNING AND RESEARCH  
State Clearinghouse



Steven A. Nissen  
DIRECTOR

January 23, 2002

Christopher Mundhenk  
Metropolitan Water District of Southern California  
700 N. Alameda Street  
Los Angeles, CA 90012

Subject: OC-88 Energy Savings Modification Project  
SCH#: 2001121117

Dear Christopher Mundhenk:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on January 22, 2002, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts  
Director, State Clearinghouse

Enclosures

cc: Resources Agency



**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2001121117  
**Project Title** OC-88 Energy Savings Modification Project  
**Lead Agency** Metropolitan Water District of Southern California

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**Type** Neg Negative Declaration  
**Description** The proposed program involves the modification of the existing pump station to make it a closed-suction design to reduce energy costs. This will involve the installation of a new pump supply line, modification of the pump suction casings and forebay, and insallation of an upstream surge protection tank.

---

**Lead Agency Contact**

**Name** Christopher Mundhenk  
**Agency** Metropolitan Water District of Southern California  
**Phone** 213-217-7658 **Fax**  
**email**  
**Address** 700 N. Alameda Street  
**City** Los Angeles **State** CA **Zip** 90012

---

**Project Location**

**County** Orange  
**City** Lake Forest  
**Region**  
**Cross Streets** Commercentre Drive and Bake Parkway  
**Parcel No.**  
**Township** **Range** **Section** **Base**

---

**Proximity to:**

**Highways**  
**Airports** El Toro  
**Railways**  
**Waterways**  
**Schools**  
**Land Use** Water Distribution System Corridor-Orange County Region

---

**Project Issues** Aesthetic/Visual; Noise; Wildlife

---

**Reviewing Agencies** Resources Agency; Department of Fish and Game, Region 5; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 12; State Water Resources Control Board, Division of Water Quality; Regional Water Quality Control Board, Region 8; Native American Heritage Commission; State Lands Commission

---

**Date Received** 12/24/2001 **Start of Review** 12/24/2001 **End of Review** 01/22/2002

---

**B. OFFICE OF PLANNING AND RESEARCH, STATE CLEARINGHOUSE, LETTER  
DATED JANUARY 23, 2002**

Response 1: Comment noted. As clarification, the environmental document circulated for public review was a Mitigated Negative Declaration, not a Negative Declaration.

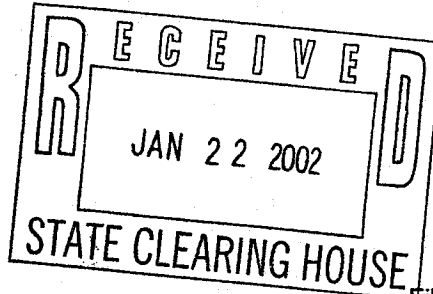
# Comment Letter C

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY

GRAY DAVIS, Governor

## DEPARTMENT OF TRANSPORTATION

DISTRICT 12  
3337 Michelson Drive Suite 380  
Irvine, CA. 92612-8894



January 15, 2002

Ms. Laure Simonek, Environmental Planning  
The Metropolitan Water District of Southern California  
700 North Alameda Street  
Los Angeles, CA 90012

File: IGR/CEQA  
SCH#: 2001121117  
Log #: 1008  
SR #: SR-261

### Subject: OC-88 Energy Savings Modification Project

Dear Ms. Simonek;

Thank you for the opportunity to review the **OC-88 Energy Savings Modification Project Mitigated Negative Declaration and Initial Study** dated December 2001. The project is located entirely within the fenced boundaries of the existing OC-88 Pump Station facility, near the intersection of Bake Parkway and Commercenter Drive in the city of Lake Forest. The closest State facility to the project is SR-261.

**Caltrans District 12 status is a reviewing agency** on this project and has no comments at this time. However, in the event of any activity in Caltrans right-of-way, an encroachment permit will be required. Applicants are required to plan for sufficient permit processing time, which may include engineering studies and environmental documentation.

Please continue to keep us informed of this project and other future developments, which could potentially impact the transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Becky Shumway at (949) 440-4461.

Sincerely,

Robert F. Joseph, Chief  
Advanced Planning Branch

c: Terry Roberts, Office of Planning and Research  
Ron Helgeson, Caltrans HQ IGR/Community Planning

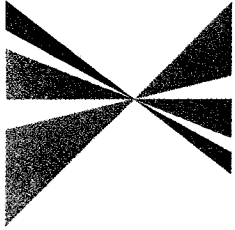
**C. DEPARTMENT OF TRANSPORTATION, LETTER DATED JANUARY 23, 2002**

Response 1: Comment noted.



# Comment Letter D

SOUTHERN CALIFORNIA



**ASSOCIATION of  
GOVERNMENTS**

**Main Office**

818 West Seventh Street  
12th Floor  
Los Angeles, California  
90017-3435

t (213) 236-1800

f (213) 236-1825

[www.scag.ca.gov](http://www.scag.ca.gov)

Officers: President: Supervisor Jon Mikels, County of San Bernardino • First Vice President: Councilmember Hal Bernson, Los Angeles • Second Vice President: Councilmember Bev Perry, Los Angeles • Immediate Past President: Mayor Pro Tem Ron Bates, Los Alamitos

Imperial County: Hank Kuiper, Imperial County • David Dhillon, El Centro

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Orange County: Charles Smith, Orange County • Ron Bates, Los Alamitos • Ralph Bauer, Huntington Beach • Art Brown, Buena Park • Lou Bone, Tustin • Elizabeth Cowan, Costa Mesa • Cathryn DeYoung, Laguna Niguel • Richard Dixon, Lake Forest • Alta Duke, La Palma • Shirley McCracken, Anaheim • Bev Perry, Brea • Tod Ridgeway, Newport Beach

Riverside County: Bob Buster, Riverside County • Ron Loveridge, Riverside • Greg Pettis, Cathedral City • Ron Roberts, Temecula • Jan Rudman, Corona • Charles White, Moreno Valley

San Bernardino County: Jon Mikels, San Bernardino County • Bill Alexander, Rancho Cucamonga • David Eshleman, Fontana • Lee Ann Garcia, Grand Terrace • Bob Hunter, Victorville • Gwenn Norton-Perry, Chino Hills • Judith Valles, San Bernardino

Ventura County: Judy Mikels, Ventura County • Glen Becerra, Simi Valley • Donna De Paola, San Buenaventura • Toni Young, Port Huene

Riverside County Transportation Commission: Robin Lowe, Hemet

Ventura County Transportation Commission: Bill Davis, Simi Valley

January 8, 2002

Mr. Christopher Mundhenk  
The Metropolitan Water District  
Of Southern California  
Corporate Resources Group,  
Environmental Planning Unit  
P. O. Box 54153  
Los Angeles, CA 90054-0153

**RE: SCAG Clearinghouse I20010699 OC-88 Energy Savings Modifications Project**

Dear Mr. Mundhenk:

We have reviewed the above referenced document and determined that it is not regionally significant per Areawide Clearinghouse criteria. Therefore, the project does not warrant clearinghouse comments at this time. Should there be a change in the scope of the project, we would appreciate the opportunity to review and comment at that time.

A description of the project was published in the **December 31, 2001 Intergovernmental Review Report** for public review and comment.

The project title and SCAG Clearinghouse number should be used in all correspondence with SCAG concerning this project. Correspondence should be sent to the attention of the Clearinghouse Coordinator. If you have any questions, please contact me at (213) 236-1867.

Sincerely,

**JEFFREY M. SMITH, AICP**  
Senior Planner  
Intergovernmental Review

**D. SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS, LETTER  
DATED JANUARY 8, 2002**

Response 1: Comment noted.

# Comment Letter E



10500 Ellis Avenue  
P.O. Box 20895  
Fountain Valley, California 92728  
(714) 963-3058  
Fax: (714) 964-9389  
www.mwdoc.com

Wayne A. Clark  
President

Joan C. Finnegan  
Vice-President

Ergun Bakall  
Director

Brett R. Barbre  
Director

Larry D. Dick  
Director

Susan Hinman  
Director

Ed Royce, Sr.  
Director

Stanley E. Sprague  
General Manager

January 28, 2002

Metropolitan Water District of Southern California  
P.O. Box 54153  
Los Angeles, CA 90054-0153

attn: Mr. Christopher Mundhenk  
Corporate Resources Group, Environmental Planning Unit

Re: **OC-88 Energy Savings Modifications Project**  
**MWDOC Comments on Mitigated Negative Declaration of Dec. 2001**

The Municipal Water District of Orange County (MWDOC) on December 28, 2001 received your Notice of Intent to adopt the subject Mitigated Negative Declaration, and we have the following comments:

*1. Section 1, Background*

- a) You could add a note that the "OC-88 Pump Station" is the facility previously known as the "South County Pump Station". | 1
- b) The South County Pipeline is not owned by MWDOC, but is jointly owned by Metropolitan and Santa Margarita Water District (SMWD). SMWD is a member agency of MWDOC. SMWD is the pipeline operator. | 2
- c) Regarding the optional additional pumps: MWDOC would like this Project to include not 2 but 3 pumps, to fill out all 7 existing pump slots. It will be more cost-effective to install all 3 pumps at this time than to add them one-by-one. Increased MWDOC demand at OC-88 would be due mostly to growth in southern Orange County; only a small amount of the increased demand at OC-88 would be due to re-routing imported water now taken through the East Orange County Feeder No. 2. Water demand in the area is expected to increase as approved developments are constructed. Chapter V of the AMP Flow Augmentation Project EIR (Sch. #88071323) certified in December 1988 covered the growth-inducing impacts of the larger project that included the South County Pump Station. The 3 final pumps of the Pump Station would not have growth-inducing effects beyond those already considered as part of the long-range local and regional planning efforts. | 3

*2. Section 1, Project Description*

- a) On Figure 2, show the 66-inch Allen McColloch Pipeline, the 39-inch Baker Pipeline, the 66-inch South County Pipeline, and maybe the 42-inch emergency overflow line (that leads to a storm drain in Bake Parkway). | 4
- b) Figure 3 is looking Northeast, not Northwest. | 5

**MEMBER AGENCIES**

City of Brea  
City of Buena Park  
Capistrano Valley Water District  
County of Orange  
East Orange County Water District  
El Toro Water District  
City of Fountain Valley  
City of Garden Grove  
City of Huntington Beach  
Irvine Ranch Water District  
Laguna Beach County Water District  
City of La Habra  
City of La Palma  
Mesa Consolidated Water District  
Moulton Niguel Water District  
City of Newport Beach  
City of Orange  
Orange County Water District  
Orange Park Acres Mutual Water Co.  
City of San Clemente  
Santa Margarita Water District  
Santiago County Water District  
City of Seal Beach  
Serrano Water District  
South Coast Water District  
Southern California Water Co.  
Trabuco Canyon Water District  
City of Tustin  
City of Westminster  
Yorba Linda Water District

3. *Section 3 XI Noise Impact during construction*

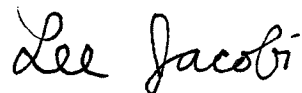
- a) Metropolitan may be exempt from local building ordinances and therefore a noise Variance from the City of Lake Forest may not be required. Coordination with the City might be sufficient mitigation. 6

4. *Section 3 XVI Impact on Utilities and Service Systems –Discussion of a-e*

- a) Three additional pumps are needed at the OC-88 Pump Station due to increasing demand for water. Water demand in the area is increasing as approved developments get constructed. The 3 additional pumps will be necessary to provide drinking water service to developments that have been approved through the normal planning process. 7
- b) MWDOC is concerned that the proposed “in-line” operation of the OC-88 Pump Station might impact the operation of the South County Pipeline. MWDOC would like Metropolitan to coordinate with Santa Margarita WD (the operator of the South County Pipeline) on how the flow of the in-line Pump Station will be controlled, and on how the OC-88 Service Connection, the in-line Pump Station, and the South County Pipeline will be operated together. 8
- c) MWDOC is concerned that the Baker Pipeline might be impacted by construction of the new 66-inch buried pipe where these two lines cross. MWDOC would like Metropolitan to send construction plans of the crossing to the operator of the Baker Pipeline, the Santiago Aqueduct Commission c/o Irvine Ranch Water District, for their review. 9
- d) The OC-88 Pump Station is a critical supply facility, and the local retail water agencies dependent on it cannot sustain a Pump Station outage of more than 7 days in winter, less days in summer. The Discussion states that service will be maintained during construction, but it does not say 100% maintained, nor can that be expected. The Metropolitan construction plan needs to address the operational coordination required with local agencies to minimize the duration of any facility outage and to deal with any temporary reduction in pumping ability. 10

We appreciate the opportunity to review and comment on your Project.

Sincerely,



Lee A. Jacobi  
Senior Engineer  
(714) 593-5011

**E. MUNICIPAL WATER DISTRICT OF ORANGE COUNTY, LETTER DATED  
JANUARY 28, 2002**

Response 1: Comment noted.

Response 2: As noted by the commentor, the South County Pipeline is owned and operated by the Santa Margarita Water District, which is a member of the Municipal Water District of Orange County (MWDOC).

Response 3: The two optional additional pumps and the possibility of a third optional additional pump are subject to ongoing negotiations with MWDOC. Page 5 of the MND notes that the two optional pumps would handle additional water flows during high water-demand periods and serve as backup for the reliable service of the pipeline. The MND also acknowledges that the pump house is designed for a total of seven pumps – three new pumps and four existing pumps. The location of all the pumps is indicated on page 4 (Figure 2) of the MND within the existing facility. The installation of the remaining third optional pump would not increase the construction schedule, construction impact zone, or result in additional impacts to the environment. If installed, this pump would provide additional reliability/redundancy when another pump within this facility would be shut down for maintenance or in cases where another pump failed. Metropolitan needs to maintain its distribution system with periodic shutdowns. Hence, an increase in reliability, while shutdowns occur elsewhere may require the addition of the third optional pump.

Response 4: The pipelines, as noted by MWDOC, are not part of the proposed improvements nor will they be impacted during Project implementation. Also, see Response 9.

Response 5: The view is looking Northwest as stated in the MND. Please reference Figure 2 for further clarification.

Response 6: See Comment 2 from Letter G and Response 2 for Letter G (City of Lake Forest).

Response 7: See Response 3.

Response 8: Comment noted. Metropolitan will coordinate with the Santa Margarita Water District regarding the continued operation of the South County Pipeline.

Response 9: Prior to construction, Metropolitan will coordinate with the operator of the Baker Pipeline, the Santiago Aqueduct Commission c/o Irvine Ranch Water District, to ensure that existing pipelines will not be affected during Project construction.

Response 10: By staggering construction activities and through the use of alternate service connections, including OC-88A, during the second phase of construction, water deliveries to MWDOC, that normally occur via the OC-88 Pump Station, would be maintained without causing a temporary water supply impact.

# Comment Letter F



## County of Orange Planning & Development Services Department

THOMAS B. MATHEWS  
DIRECTOR

300 N. FLOWER ST.  
SANTA ANA, CALIFORNIA

MAILING ADDRESS:  
P.O. BOX 4048  
SANTA ANA, CA 92702-4048

NCL 01-127

January 28, 2002

Mr. Christopher Mundhenk  
The Metropolitan Water District of Southern California  
Corporate Resources Group, Environmental Planning Unit  
P.O. Box 54153  
Los Angeles, CA 90054-0153

SUBJECT: Mitigated ND for the OC-88 Energy Savings Modifications Project

Dear Mr. Mundhenk:

The above referenced item is a Mitigated Negative Declaration (ND) for the Metropolitan Water District of Southern California (MWD). The proposed project site is in the City of Lake Forest at the existing OC-88 Pump Station located along Bake Parkway near the intersection of Bake Parkway and Commercentre Drive. The project involves modifications to the existing facility to reduce energy usage and costs. This will involve the installation of a new pump supply line, modification of the underground reservoir, and installation of two surge protection tanks.

The County of Orange has reviewed the ND and offers the following comments regarding cultural and historical issues:

1. The cultural resources analysis states that no impacts are anticipated because "no new soil" will be disturbed. This does not seem possible if there are new pipelines and a surge tank proposed as part of the project. | 1
2. At a minimum, the negative declaration should include a mitigation to monitor earthwork for the new surge tank and pipelines. | 2
3. The cultural resources mitigation language used in the proposed ND should be updated to address current standards for artifact curation and long-term collection management. | 3
4. We encourage the Metropolitan Water District to follow the Board of Supervisors example in requiring that cultural resource artifacts, which may be discovered during the | 4

site development, be donated to a suitable repository that will maintain the collection for future scientific study and exhibition "within Orange County." Prior to donation, the certified cultural resources consultant should prepare the collection "to the point of identification."

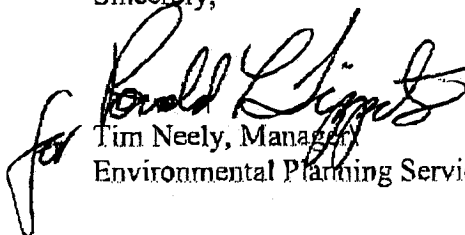
4  
(cont'd)

- 5. The project proponent should be prepared to pay "potential curation fees" to the County or other suitable repository for the long-term curation and maintenance of donated collections.

5

Thank you for the opportunity to respond to the ND. If you have any questions, please contact Charlotte Harryman at (714) 834-2522.

Sincerely,



for *Tim Neely*

Tim Neely, Manager  
Environmental Planning Services Division

CH



**F. COUNTY OF ORANGE, LETTER DATED JANUARY 28, 2002**

Response 1: The proposed Project site is a heavily disturbed area. All construction would occur within areas that have been disturbed by previous construction activities, including the construction of the pumping plant itself and the pipelines that it connects. Therefore, since the area has been extensively disturbed and excavated in the past, the proposed Project would not disturb native soils that may contain previously undiscovered cultural resources. As mentioned in the MND, if for any reason, cultural resources are encountered during construction activities, construction work around the sensitive area would cease until a qualified archaeologist has examined the cultural resources and determined the appropriate course of action.

Response 2: An archaeological records search and analysis of the Project site was performed in association with the MND (refer to page 27 of the MND). It has been determined, based on the results of that records search, that no cultural resource monitoring is necessary during construction of the proposed Project at the OC-88 Pump Station due to the level of disturbance of the soils at the Project site.

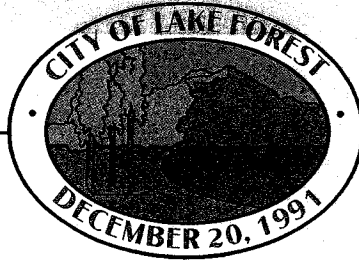
Response 3: Any resources found at the Project site during construction of the proposed Project would be appropriately collected and curated.

Response 4: Comment noted. See Response 3.

Response 5: Comment noted. See Response 3.

# Comment Letter G

CITY OF LAKE FOREST



Celebrating  
10 Years of Cityhood

January 23, 2002

Mr. Christopher Mundhenk  
Metropolitan Water District of Southern California  
Corporate Resources Group, Environmental Planning Unit  
P.O. Box 54153  
Los Angeles, CA 90054-0153

**Mayor**  
Richard T. Dixon

**Mayor Pro Tem**  
Peter Herzog

**Council Members**  
Kathryn McCullough  
Marcia Rudolph  
Helen Wilson

**City Manager**  
Robert C. Dunek

RE: Notice of Availability and Notice of Intent to Adopt a Mitigated  
Negative Declaration for the OC-88 Energy Savings Modification Project

Dear Mr. Mundhenk:

Thank you for the opportunity to comment on the Mitigated Negative Declaration for the OC-88 Energy Savings Modification Project. The City of Lake Forest Development Services Department has reviewed the document and offers the following comments.

The Noise impacts section of the Initial Study indicates that the project will have a substantial temporary increase in ambient noise levels, and that the impact would be reduced to less than significant with mitigation. The mitigation measures listed address the requirements of the Lake Forest Municipal Code, but do not include general measures to reduce noise impacts from construction.

Mitigation Measure XI.1 requires that the first phase of construction be limited to between the hours of 7:00 a.m. and 8:00 p.m., Monday through Friday. This is consistent with the provision in the Lake Forest Municipal Code exempting construction noise during those hours and days. Thus, during the first phase of construction, construction noise would be exempt. However, if the increase in ambient noise levels is substantial, there may be negative impacts on surrounding receptors, regardless of compliance with the Code. We therefore suggest that additional noise mitigation be applied for any periods of construction which will result in a substantial increase in noise at surrounding receptor locations.

Mitigation Measure XI.2 requires that MWD obtain a noise variance from the City of Lake Forest to allow 24-hour construction during the second phase of the project. Provided that construction noise does not exceed 50 dBA at any residential property line between the hours of 10:00 p.m. and 7:00 a.m., a noise variance would not be required. However, construction after 8:00 p.m. will require approval of the City's Building Department. Furthermore, as suggested above, we feel that additional noise mitigation should be applied for any periods of construction which will result in a substantial increase in noise at surrounding receptor locations.

DRUG USE  
IS  
LIFE ABUSE

Mr. Christopher Mundhenk  
January 23, 2002  
Page 2

If you have any questions or comments, please contact me at (949) 461-3479. You may contact Jim Brogan, Building Official, at (949) 461-3464 regarding obtaining City approval for construction between 8:00 p.m. and 7:00 a.m. on weekdays and Saturdays, or any time on Sundays or federal holidays.

Sincerely,  
CITY OF LAKE FOREST



Cheryl Kuta, AICP  
Associate Planner

cc     Gayle Ackerman, AICP, Development Services Director  
       Robert L. Woodings, P.E., Director of Public Works/City Engineer

F:\CKuta\Interjurisdictional\mwd comments 1\_22\_02.doc

**G. CITY OF LAKE FOREST, LETTER DATED JANUARY 23, 2002**

Response 1: Based on the distance (approximately 1,760 feet) between the proposed Project and the nearest sensitive receptors, construction of the proposed Project is not anticipated to result in a substantial noise increase at surrounding sensitive receptor locations. In the unlikely event that surrounding receptors are subjected to substantial increases in ambient noise levels due to the construction of the proposed Project, appropriate methods of noise abatement, which may include temporary noise barriers, would be implemented.

Response 2: Given the commentor's statement regarding the appropriate city department in which to secure approval, the proposed mitigation is hereby minorly reworded for clarification purposes. As such, instead of applying for a noise variance from the city of Lake Forest, Metropolitan will obtain the approval of the City's Building Department to allow for 24-hour construction activities.

During the second phase of construction, all nighttime construction activities would be contained either within the existing buried reservoir or separated from any nearby receptors by an existing earthen barrier. Based on this aspect of Project construction and on the distance of the proposed Project to the nearest sensitive receptors, implementation of the proposed Project, even during the period of 24-hour construction, would not create a substantial increase in ambient noise. However, as mentioned above, appropriate methods of noise abatement would be implemented in the unlikely event that surrounding receptors are subjected to any substantial noise increases generated by the proposed Project.

Attachment 6  
(10 pages)

Mitigation Monitoring  
and Reporting Program

Board Letter 8-2

March 12, 2002 Board Meeting

**OC-88 Energy Savings  
Modifications Project  
Mitigated Negative Declaration**

**SCH# 2001121117**

**MITIGATION MONITORING  
AND REPORTING PROGRAM**

**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA**

**Metropolitan Report No. 1178**

**February 2002**

## **1.0 INTRODUCTION**

The California Environmental Quality Act (CEQA) requires all state and local agencies to adopt mitigation monitoring programs when adopting a mitigated negative declaration (Public Resources Code Section 21081.6). This Mitigation Monitoring and Reporting Program (MMRP) satisfies the requirements of CEQA and the State CEQA Guidelines as they relate to the Mitigated Negative Declaration for the OC-88 Energy Savings Modifications Project (Project) prepared by The Metropolitan Water District of Southern California (Metropolitan). The MMRP will be used by Metropolitan staff responsible for ensuring compliance with mitigation measures associated with the Project.

The Mitigated Negative Declaration (MND) for the Project identified mitigation measures designed to reduce or avoid potentially significant effects of the project with respect to aesthetics, biological resources, and noise. These mitigation measures are summarized in Table 1 of Section 2 of this document. Section 2 of this document also identifies the specific monitoring and reporting requirements, including the party responsible for implementing the mitigation measure or the construction requirements, the implementation phase, the monitoring activity, the monitoring period, the frequency of monitoring, the party responsible for monitoring the mitigation measure and any required outside agency coordination.

Section 3 of this document describes project elements and regulatory/permit requirements that are not part of the MMRP but are included herein to convey how the Project will comply with government codes, ordinances, or regulations and will reduce further the less-than-significant project effects. The environmental categories detailed in this section are cultural resources, hazards and hazardous materials, hydrology and water quality, and air quality.

## 2.0 MITIGATION MEASURES, CONSTRUCTION REQUIREMENTS, AND MONITORING REQUIREMENTS

<b>TABLE 1 MITIGATION MEASURES SUMMARY OC-88 ENERGY SAVINGS MODIFICATIONS PROJECT</b>	
<b>Category</b>	<b>Mitigation Measure</b>
AESTHETICS	Any nighttime lighting not located within the existing reservoir shall be pointed downward and away from the existing residences.*
BIOLOGICAL RESOURCES	All construction (including laydown and spoils areas) shall be within non-CSS areas or CSS areas that do not provide suitable habitat. A biological monitor shall be present during all vegetation removal activities to ensure that suitable CSS habitat is not disturbed.*
	The proposed actions shall be described, mapped, documented and submitted to the County of Orange, the United States Fish and Wildlife Service, and the California Department of Fish and Game.*
NOISE	Construction during the first phase of construction shall be limited to the hours of 7:00 a.m. to 8:00 p.m., Monday through Friday.
	Prior to construction, approval shall be obtained from the city of Lake Forest Building Department, to allow 24-hour construction during the second phase of construction.*

\* These mitigation measures have been slightly rewritten to clarify comments raised in letters received during the public review of the MND. These minor revisions in the text of the measures do not trigger requirements discussed in Section 15074.1 of the State CEQA Guidelines (i.e., substitution of mitigation measures in a proposed mitigated negative declaration).



## AESTHETICS

### *ADVERSE IMPACT*

There is potential for nighttime construction lighting to be visible from nearby sensitive receptors, including single family residences.

### *MITIGATION PLAN*

**Reference Number:**

I.1

**Mitigation:**

Any nighttime lighting not located within the existing reservoir shall be pointed downward and away from the existing residences.

**Party Responsible  
for Implementing  
Mitigation:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Implementation Phase:**

Construction

### *MONITORING AND REPORTING PLAN*

**Monitoring Activity:**

Observation of the daily alignment of the onsite light fixtures

**Monitoring Period:**

Construction

**Frequency:**

Daily, during nighttime construction activities only

**Party Responsible for  
Monitoring Activity:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Outside Agency  
Coordination:**

No

**Agency Names:**

N/A

## BIOLOGICAL RESOURCES

### *ADVERSE IMPACT*

There is potential for impacts to occur to coastal sage scrub habitat from construction activities at the Project site.

### *MITIGATION PLAN*

**Reference Number:**

IV.1

**Mitigation:**

All construction (including laydown and spoils areas) shall be within non-CSS areas or CSS areas that do not provide suitable habitat. A biological monitor shall be present during all vegetation removal activities to ensure that suitable CSS habitat is not disturbed.

**Party Responsible for Implementing Mitigation:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Implementation Phase:**

Construction

### *MONITORING AND REPORTING PLAN*

**Monitoring Activity:**

Monitoring by a biologist at the Project site during construction activities which involve vegetation removal

**Monitoring Period:**

Construction

**Frequency:**

Daily, during vegetation removal activities

**Party Responsible for Monitoring Activity:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Outside Agency Coordination:**

No

**Agency Names:**

N/A

## **BIOLOGICAL RESOURCES**

### ***ADVERSE IMPACT***

Potential indirect impacts within the Orange County Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP).

### ***MITIGATION PLAN***

**Reference Number:**

IV.2

**Mitigation:**

The proposed actions shall be described, mapped, documented and submitted to the County of Orange, the United States Fish and Wildlife Service (USFWS), and the California Department of Fish and Game (CDFG).

**Party Responsible for Implementing Mitigation:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Implementation Phase:**

Pre-Construction

### ***MONITORING AND REPORTING PLAN***

**Monitoring Activity:**

Circulation of the OC-88 Energy Savings Modifications Mitigated Negative Declaration to the County of Orange, USFWS, and CDFG.

**Monitoring Period:**

Pre-Construction

**Frequency:**

One Time

**Party Responsible for Monitoring Activity:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Outside Agency Coordination:**

Yes

**Agency Names:**

County of Orange, USFWS, and CDFG

## NOISE

### *ADVERSE IMPACT*

Construction activities associated with the Project would generate short-term construction noise.

### *ACTION PLAN*

**Reference Number:**

XI-1

**Action:**

During the first phase of construction, work will be limited to the hours of 7:00 a.m. to 8:00 p.m., Monday through Friday.

**Party Responsible  
for Implementing Activity:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Implementation Phase:**

Construction

### *MONITORING AND REPORTING PLAN*

**Monitoring Activity:**

Conduct a daily site check to ensure that construction activities are limited to the hours of 7:00 a.m. to 8:00 p.m., Monday through Friday.

**Monitoring Period:**

Construction

**Frequency:**

Daily

**Party Responsible for  
Monitoring Activity:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Outside Agency  
Coordination:**

No

**Agency Names:**

N/A

## NOISE

### *ADVERSE IMPACT*

Construction activities during the second phase of construction would occur 24-hours each day. This would be in conflict with the city of Lake Forest Noise Ordinance.

### *ACTION PLAN*

**Reference Number:**

XI-2

**Action:**

Prior to construction, approval shall be obtained from the city of Lake Forest Building Department, to allow 24-hour construction during the second phase of construction.

**Party Responsible  
for Implementing Activity:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Implementation Phase:**

Pre-Construction

### *MONITORING AND REPORTING PLAN*

**Monitoring Activity:**

Obtain approval from the city of Lake Forest

**Monitoring Period:**

Pre-Construction

**Frequency:**

One Time

**Party Responsible for  
Monitoring Activity:**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Outside Agency  
Coordination:**

Yes

**Agency Names:**

City of Lake Forest, Building Department

### **3.0 PROJECT DESCRIPTION AND REGULATORY/PERMIT REQUIREMENTS**

#### **3.1 INTRODUCTION**

This section describes those elements of the Project which will be incorporated into the Project description or implemented to comply with government codes, ordinances, or regulations. These elements are not part of the MMRP but are presented here to convey information about other commitments made as part of the Project that will reduce Project effects.

#### **3.2 DESCRIPTION OF PROJECT DESCRIPTION ELEMENTS BY TOPIC**

##### **3.2.1 Cultural Resources**

- Although the potential is very low for uncovering buried archaeological or paleontologic resources, should such a situation arise at the Project site, then such resources will be assessed by a qualified archaeologist/paleontologist to determine the importance of the resource and the appropriate measures to implement, such as avoidance or Phase II/Phase III cultural resource surveys.

##### **3.2.2 Hazards and Hazardous Materials**

- Construction activities will follow applicable safety laws to ensure safe working conditions for construction workers. Appropriate health and safety procedures will be implemented.
- Fire containment and extinguishing equipment will be located onsite and will be accessible during construction activities. Construction workers will be trained to use the fire suppression equipment.
- If, during construction activities at the Project site, contaminated soils or suspected hazardous materials are encountered, such soils will be stockpiled and disposed of in compliance with applicable hazardous materials regulations.

##### **3.2.3 Hydrology and Water Quality**

- The contractor will implement appropriate erosion control measures, which might include providing storm drain outlet protection using straw bales, covering the excavation during the evenings, maintaining slope stabilization, and preserving existing vegetation where possible. Implementation of these measures is described in the California Storm Water Best Management Practices Handbook

##### **3.2.4 Air Quality**

- The proposed Project will use electricity from existing power poles instead of gas or diesel-powered electrical generators.

### **3.3 LIST OF PERMIT REQUIREMENTS BY AGENCY**

In addition to the mitigation measures described in the MMRP, the MND identified one permit or approval, which is listed below, that would be required from one agency.

- City of Lake Forest
  - Noise Variance/Approval