

**INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION**

**JOSEPH P. JENSEN FILTRATION PLANT  
OXIDATION RETROFIT PROGRAM  
GRANADA HILLS, LOS ANGELES COUNTY, CALIFORNIA**

\* \* \* \* \*

**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA  
P.O. Box 54153  
Los Angeles, California, 90054-0153**

\* \* \* \* \*

**May 1994**



THIS REPORT HAS BEEN COPIED  
ON RECYCLED XEROGRAPHIC PAPER

## TABLE OF CONTENTS

	<b>Page</b>
1.0 PROJECT DESCRIPTION .....	1-1
1.1 Introduction .....	1-1
1.2 Project Location .....	1-1
1.3 Project Need .....	1-2
1.4 Project Objective .....	1-4
1.5 Existing Conditions .....	1-5
1.6 Project Components .....	1-5
1.7 Project Layout .....	1-14
1.8 Project Construction .....	1-19
2.0 ENVIRONMENTAL CHECKLIST .....	2-1
2.1 Earth .....	2-1
2.2 Air .....	2-1
2.3 Water .....	2-1
2.4 Plant Life .....	2-2
2.5 Animal Life .....	2-2
2.6 Noise .....	2-2
2.7 Light and Glare .....	2-2
2.8 Land Use .....	2-2
2.9 Natural Resources .....	2-3
2.10 Risk of Upset .....	2-3
2.11 Population .....	2-3
2.12 Housing .....	2-3
2.13 Transportation/Circulation .....	2-3
2.14 Public Services .....	2-3
2.15 Energy .....	2-4
2.16 Utilities and Service Systems .....	2-4
2.17 Human Health .....	2-4
2.18 Aesthetics .....	2-4
2.19 Recreation .....	2-4
2.20 Cultural Resources .....	2-4
3.0 DISCUSSION OF ENVIRONMENTAL ISSUES .....	3-1
3.1 Earth .....	3-1
3.2 Air .....	3-5
3.3 Water .....	3-10
3.4 Plant Life .....	3-11
3.5 Animal Life .....	3-15

### TABLE OF CONTENTS (Continued)

	Page
3.6 Noise .....	3-17
3.7 Light and Glare .....	3-22
3.8 Land Use .....	3-23
3.9 Natural Resources .....	3-24
3.10 Risk of Upset .....	3-24
3.11 Population .....	3-27
3.12 Housing .....	3-28
3.13 Transportation/Circulation .....	3-28
3.14 Public Services .....	3-31
3.15 Energy .....	3-31
3.16 Utilities and Service Systems .....	3-32
3.17 Human Health .....	3-33
3.18 Aesthetics .....	3-34
3.19 Recreation .....	3-37
3.20 Cultural Resources .....	3-38
4.0 MANDATORY FINDINGS OF SIGNIFICANCE .....	4-1
5.0 LIST OF PREPARERS .....	5-1
6.0 REFERENCES .....	6-1

### LIST OF TABLES

1.7-1	Location of Project Components .....	1-14
3.2-1	Air Quality Standard Exceedances .....	3-6
3.2-2	Total Unmitigated Construction Emissions .....	3-7
3.2-3	Mitigated Construction Emissions .....	3-8
3.2-4	Long-Term Operational Emissions .....	3-9
3.4-1	Sensitive Plant Species in Project Vicinity .....	3-14
3.5-1	Sensitive Animal Species in the Project Vicinity .....	3-17
3.6-1	Predicted Noise Levels, dBA .....	3-20

## LIST OF FIGURES

	<b>Page</b>
1 Site Vicinity and Location Map . . . . .	1-3
2 Facilities Plan - Proposed Project . . . . .	1-7
3 Grading and Access Plan - Proposed Project . . . . .	1-9
4 Facilities Layout Option 1 . . . . .	1-15
5 Facilities Layout Option 2 . . . . .	1-17
6 Grading and Access Plan - Option A . . . . .	1-21
7 Grading and Access Plan - Option B . . . . .	1-23
8 Views of Jensen Filtration Plant and Project Site . . . . .	3-35

## 1.0 PROJECT DESCRIPTION

### 1.1 INTRODUCTION

The Metropolitan Water District of Southern California (Metropolitan) proposes to modify the existing treatment facilities of the Joseph P. Jensen Water Filtration Plant (Jensen Plant) to comply with current and pending federal and state drinking water regulatory requirements. The proposed improvements, collectively referred to as the Oxidation Retrofit Program, will change the primary on-site disinfection system from the current chlorination process to ozonation through the construction and modification of numerous facilities. On-site chlorine storage will continue after implementation of the proposed project to provide secondary disinfection and back-up disinfection capability in the event of any disruption to the ozonation process. The proposed washwater residuals facility will allow disposal of thickened solids to a landfill rather than as an industrial waste discharge to the City of Los Angeles sewer system.

This Initial Environmental Study/Negative Declaration describes the potential environmental impacts associated with the proposed modifications, and is prepared in accordance with Sections 15063 and 15070 - 15074 of the California Environmental Quality Act (CEQA) Guidelines. Metropolitan is the lead agency for this project. Based on this Initial Environmental Study, Metropolitan has determined that the appropriate CEQA document for the proposed project is a Negative Declaration that incorporates the recommended mitigation measures into the project ("Mitigated Negative Declaration"). This initial study analyzes several options that are intended to provide flexibility in the final design and implementation of the project.

### 1.2 PROJECT LOCATION

The proposed project is located in the northern end of the San Fernando Valley, at the existing Jensen Plant, in the Granada Hills region of Los Angeles County on lands owned by Metropolitan (Figure 1). The topography of the area is dominated by the Transverse Ranges of Southern California, represented by the Santa Susana Mountains to the west and the San Gabriel Mountains to the north, with the Newhall Pass separating the two ranges. The Jensen Plant is located near the intersection of Balboa Boulevard and San Fernando Road, westerly of Interstate 5 (Golden State Freeway). The site is located on the San Fernando quad of the U.S. Geological Survey. The Jensen Plant lies within the Ex Mission de San Fernando Land Grant Boundary, and its township and range coordinates are T3N, R15W.

Most of the proposed ozonation related project improvements would be located on an undeveloped 13.5-acre area within the approximate 232-acre Jensen Plant property. The remainder of project improvements would be located on areas of the plant site that have been previously graded or paved. The plant property is bounded to the northeast by north/south oriented San Fernando Road and its intersection with Balboa Boulevard; to the northwest by a residential area, O'Melveny-Bee Canyon Park, and Balboa Boulevard; to the south by residential development adjacent to the Knollwood Country Club; to the east by Bull Creek; and to the

southeast by the Los Angeles Department of Water and Power (LADWP) water treatment plant, Sylmar converter station, and Van Norman power plants.

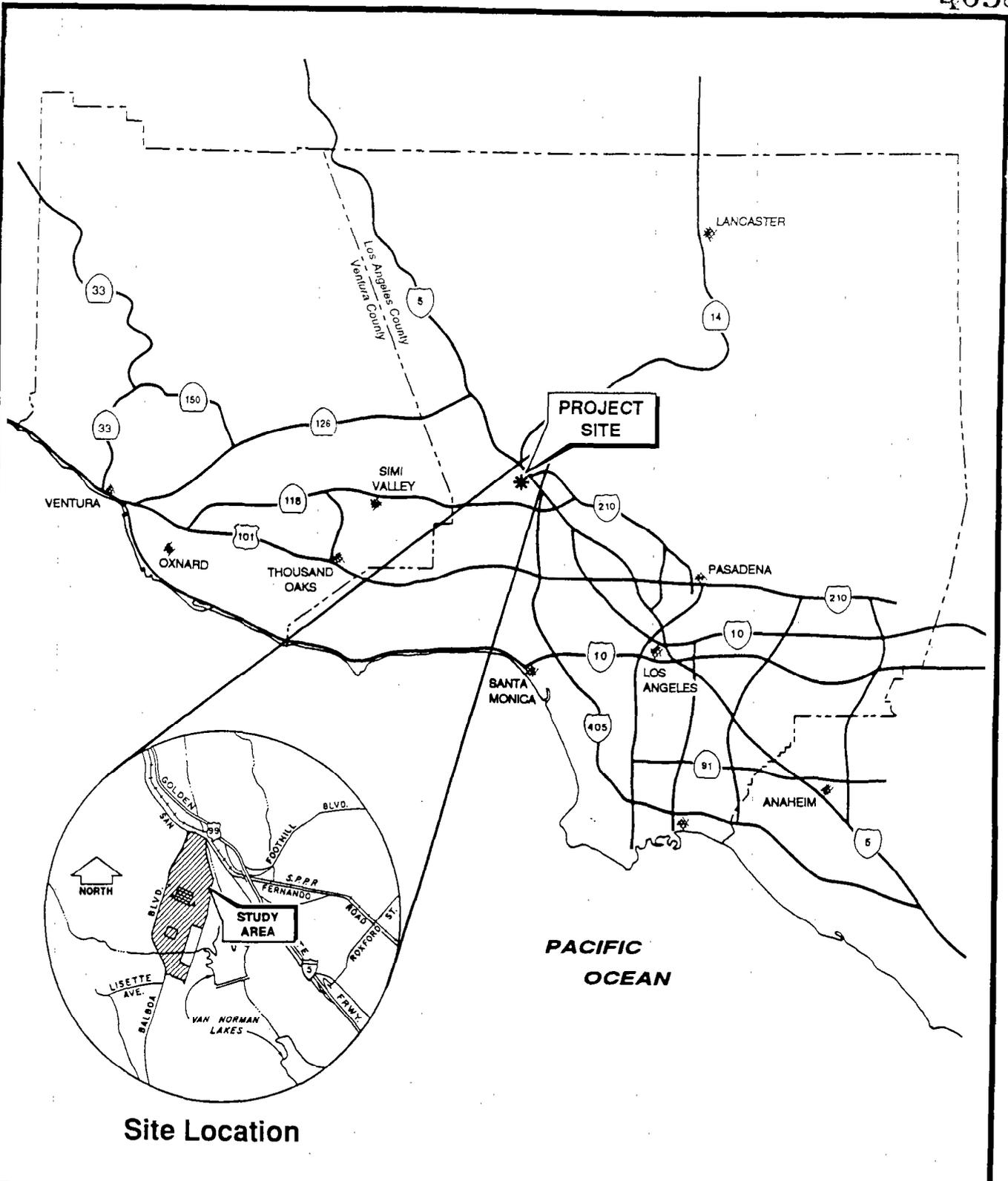
### 1.3 PROJECT NEED

Existing water treatment facilities for the disinfection and washwater residuals processes need to be improved at the Jensen Plant. Implementation of the oxidation retrofit program is needed to comply with existing and proposed drinking water regulations. Handling and disposal of residual solids that result from the filtering of water is another important component of operations at the Jensen Plant. Supplemental washwater residuals processing would reduce future discharges into the City of Los Angeles sewer system. The following sections further describe the project need for the proposed oxidation retrofit and washwater residuals processing facilities.

#### 1.3.1 Oxidation Retrofit Program

The proposed project involves modifying the existing water treatment facilities at the Jensen Plant to comply with existing and proposed drinking water regulations. These regulations include the Surface Water Treatment Rule (SWTR), the Enhanced SWTR (ESWTR), the Disinfectants/Disinfection By-Products (D/DBP) Rule, and the potential arsenic regulation. The SWTR, effective in June 1993, mandates specific filtration and disinfection requirements to ensure the removal or inactivation of potentially disease-causing microorganisms, such as *Giardia lamblia* and enteric viruses. The U.S. Environmental Protection Agency (USEPA) is also planning to propose the two-staged D/DBP Rule in May 1994 to regulate disinfectants and DBPs, including trihalomethanes (THMs). Stages 1 and 2 of the D/DBP Rule are expected to be effective in 1998 and 2002, respectively. In May of 1994, the USEPA plans to propose the ESWTR to establish removal/inactivation requirements for *Cryptosporidium*, as well as strengthening requirements for the removal of other pathogens. Finally, the USEPA has indicated that it intends to propose a reduced arsenic standard by November 1995.

Water is treated at the Jensen Plant using the conventional treatment method of chlorination of the raw influent water, chemical addition and mixing (flocculation), sedimentation and filtration. The Jensen Plant is currently using chlorine as the primary disinfectant. With the expected proposal of the D/DBP Rule (Stages 1 and 2) and more stringent disinfection requirements anticipated under the proposed ESWTR, Metropolitan will be required to make major modifications to its treatment processes. As a result, Metropolitan staff have proposed the implementation of ozone and PEROXONE (ozone in combination with hydrogen peroxide). Replacing chlorine with ozone will substantially reduce the formation of various chlorination by-products, particularly THMs. Ozone is also a more powerful disinfectant than chlorine. Finally, ozone/PEROXONE will substantially reduce naturally occurring organic compounds from the drinking water that cause earthy/musty tastes and odors, which can result in complaints from consumers.



**SITE VICINITY AND  
LOCATION MAP**  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program

## 1.0 Project Description

Based on preliminary investigations conducted by Metropolitan, it was concluded that construction of ozone/PEROXONE facilities would ensure Metropolitan compliance with all current and anticipated future drinking water regulations, as well as provide for consistent and reliable process operations. Several years are required to design, construct, and implement an ozone oxidation retrofit program. Therefore, Metropolitan is currently conducting the environmental review to ensure adequate time to meet the schedule for implementation of the oxidation retrofit program to comply with new drinking water quality regulations.

### 1.3.2 Washwater Residuals Processing Program

Metropolitan is also considering installing supplemental washwater residuals processing equipment. As part of the final phase in the current water treatment process, the Jensen Plant filters are backwashed and the thickened solids (mostly dirt and coagulated water treatment chemicals) are discharged to the City sewer system. This discharge is regulated by an industrial waste discharge permit issued to Metropolitan by the City. Metropolitan presently pays an annual fee to retain this permit. Recently, Metropolitan's discharge permit fees were substantially increased. In addition, there is uncertainty about future restrictions that may be placed on the quality or quantity of solids discharged to the City sewer system as that system reaches capacity. Proposed modification of the existing washwater treatment process may include additional thickeners and gas dryers to concentrate and dry the solids for offsite disposal at a landfill. This operation would reduce the current discharges into the City of Los Angeles sewer and the associated industrial discharge permit fees.

## 1.4 PROJECT OBJECTIVE

The objective of the proposed project is to comply with new and upcoming drinking water quality regulations. An oxidation retrofit program will allow Metropolitan to modify and upgrade its present water treatment processes at the Jensen Plant to meet the new standards. Modifications to the existing filtration plant will include constructing ozonation facilities to replace chlorine as the primary disinfectant at the inlet to the plant. Ozone, which is a more powerful chemical disinfectant than chlorine, will allow Metropolitan to limit chlorine use at the Jensen Plant, thereby reducing the potential for forming chlorinated disinfection byproducts.

In addition, chemical storage and feed systems are proposed to be expanded. These chemicals will be used to make the ozonation process more effective and to further reduce the amount of disinfection byproducts produced in the water treatment process.

Construction and operation of an on-site washwater residual processing facility will dry the residual solids produced by the treatment process for disposal at a landfill. This would prepare Metropolitan to handle expected increases in discharge fees and uncertainty regarding future restrictions on industrial waste discharges. Construction of a washwater residuals processing plant would eliminate the need to discharge residual solids to the City sewer system.

### 1.5 EXISTING CONDITIONS

The proposed oxidation retrofit program and supplemental washwater residuals processing program would be located within the north and western portions of the Jensen Plant property.

#### 1.5.1 Oxidation Retrofit Program

The majority of the improvements associated with the oxidation retrofit program would be located in the area of an existing small hill which comprises approximately 13.5 acres at the northwestern portion of the Jensen Plant. The natural portion of the hill is covered by sage scrub vegetation and has been previously identified as an ancient landslide by various geological reports (see Section 3.1). The east and south sides of this hill were previously graded during initial plant construction and subsequent expansion. The west side of the hill was originally graded when Balboa Boulevard was constructed in its present alignment in the early 1960s. The remainder of the proposed facilities would be constructed in previously graded portions of the Jensen Plant. A chemical pipe corridor is proposed as part of the oxidation retrofit program. It would be constructed within existing graded areas of the Jensen Plant. The chemical pipe corridor would cross the improved section of Weldon Canyon Creek as a suspended pipeline(s) and continue to connect with LADWP facilities via an existing road alignment.

#### 1.5.2 Washwater Residuals Processing Program

Currently, Metropolitan's filtration process produces residual solids during the backwashing portion of the operation. This used washwater flows by gravity to the existing washwater reclamation facility located on the eastern edge of the facility adjacent to Balboa Boulevard. This facility separates the residual solids from the washwater by sedimentation. The decanted liquid is returned to the headworks and blended with inlet (raw) water. The residual solids (mostly dirt and coagulated water treatment chemicals) are thickened by removing additional water and then discharged to the City sewer system. This discharge is regulated by an industrial waste discharge permit issued to Metropolitan by the City. Metropolitan presently pays an annual fee to retain this permit. The proposed washwater residuals processing equipment would be located west of the Jensen Plant Finished Water Reservoir No. 1, south of the existing washwater reclamation plant, and east of Balboa Boulevard. The equipment would be installed in one or two buildings to be constructed on an existing 0.3 acre graded area.

### 1.6 PROJECT COMPONENTS

#### 1.6.1 General Description

Implementation of the oxidation retrofit program and the washwater residuals processing program at the Jensen Plant would include the construction of new facilities as well as the demolition/relocation or modification of some existing plant facilities. Modifications of existing onsite plant pipelines would connect the new facilities to existing facilities. New

## 1.0 Project Description

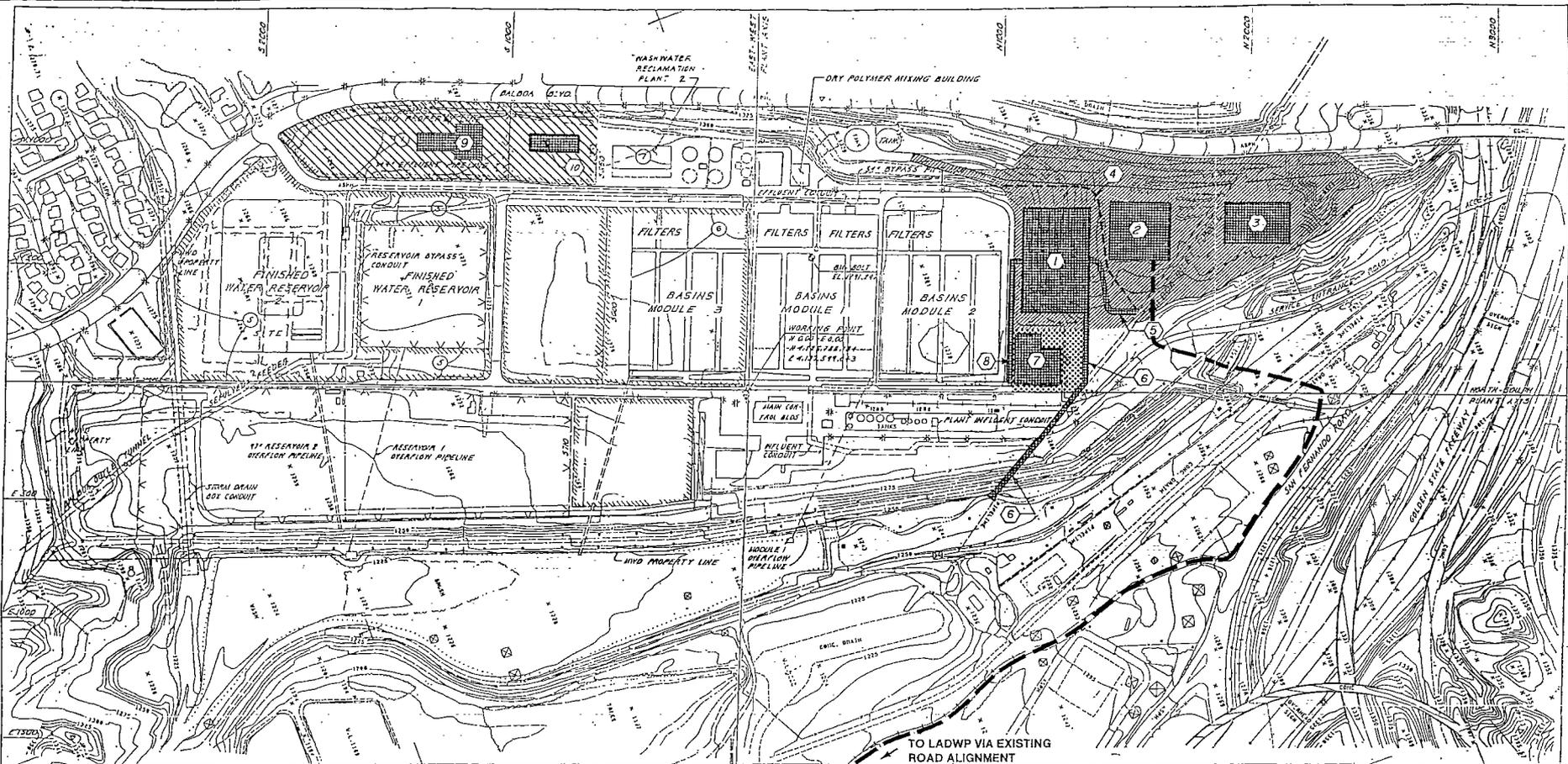
facilities would consist of ozone contactors, liquid oxygen storage and oxygen separation plant, washwater residual processing facility, ozone generation building, chemical storage/feed equipment and other appurtenant facilities. Modifications would also be made to the existing plant rejection facilities to accommodate the ozone contact basins.

Metropolitan has identified a proposed project (Figure 2) as a result of its preliminary investigation. The locations of all structures required under this project are subject to refinement during final design and construction. However, the proposed location of major facilities is anticipated to be as illustrated in Figure 2. Grading for the new pad to be constructed to accommodate the new facilities and its access road is shown on Figure 3. Under the proposed project, about 1.3 million cubic yards of in-place material would be removed, which expands to about 1.4 million cubic yards of excess material to be exported.

Major components of the proposed project and their approximate sizes include:

- Ozone Contactors - approximate plan area of 250 feet x 400 feet x 30 feet deep
- Ozone Generation Building - 200 feet x 200 feet x one- or two-story
- Oxygen Separation Plant (compressor building optional) - 50 feet x 150 feet x 25 to 75 feet tall
- Liquid Oxygen Storage Tanks - storage capacity for up to 150,000 gallons is anticipated, which could be supplied by a typical configuration of 3 horizontal tanks @ 14 feet diameter and 65 feet long
- Relocated Service Center - 150 feet x 260 feet x one- or two-story
- Washwater Residuals Processing Buildings - 2 4,500 square foot buildings x 20 feet tall
- Sulfuric Acid Tank Farm - storage of 230,000 gallons, probably in 3 tanks @ 25 feet diameter and 21 feet tall
- Hydrogen Peroxide Tank Farm - storage of 13,000 gallons, probably in 2 tanks @ 10 feet diameter and 10 feet tall
- Sodium Hydroxide Tank Farm - storage increased from 255,000 gallons to 434,000 gallons, probable use of 3 existing tanks
- Belt press building - 70 feet x 65 feet x 20 feet tall
- Gas dryer/truck loading building - 70 feet x 65 feet x 20 feet tall
- Chemical Pipe Corridor - pipeline connecting Metropolitan's Liquid Oxygen Storage and Oxygen Separation Plant with similar facilities at LADWP
- Rail Sidings - addition of approximately 2000 feet of track within the Jensen Plant

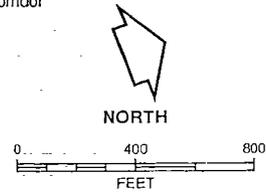
A new inlet pipeline would be constructed within the existing plant site that would directly connect the existing Balboa Inlet Tunnel with the new ozone contactors as shown in Figure 2. Various other pipelines and valves throughout the Jensen Plant may require modifications to connect with the proposed ozone disinfection system. These modifications will be low profile or below ground. An additional vehicular access to the plant would be provided by constructing a new road from the ozone facilities pad to San Fernando Road (Figure 3). This access road is proposed to follow the existing alignment of LADWP's service road.



SOURCE: Metropolitan Water District.

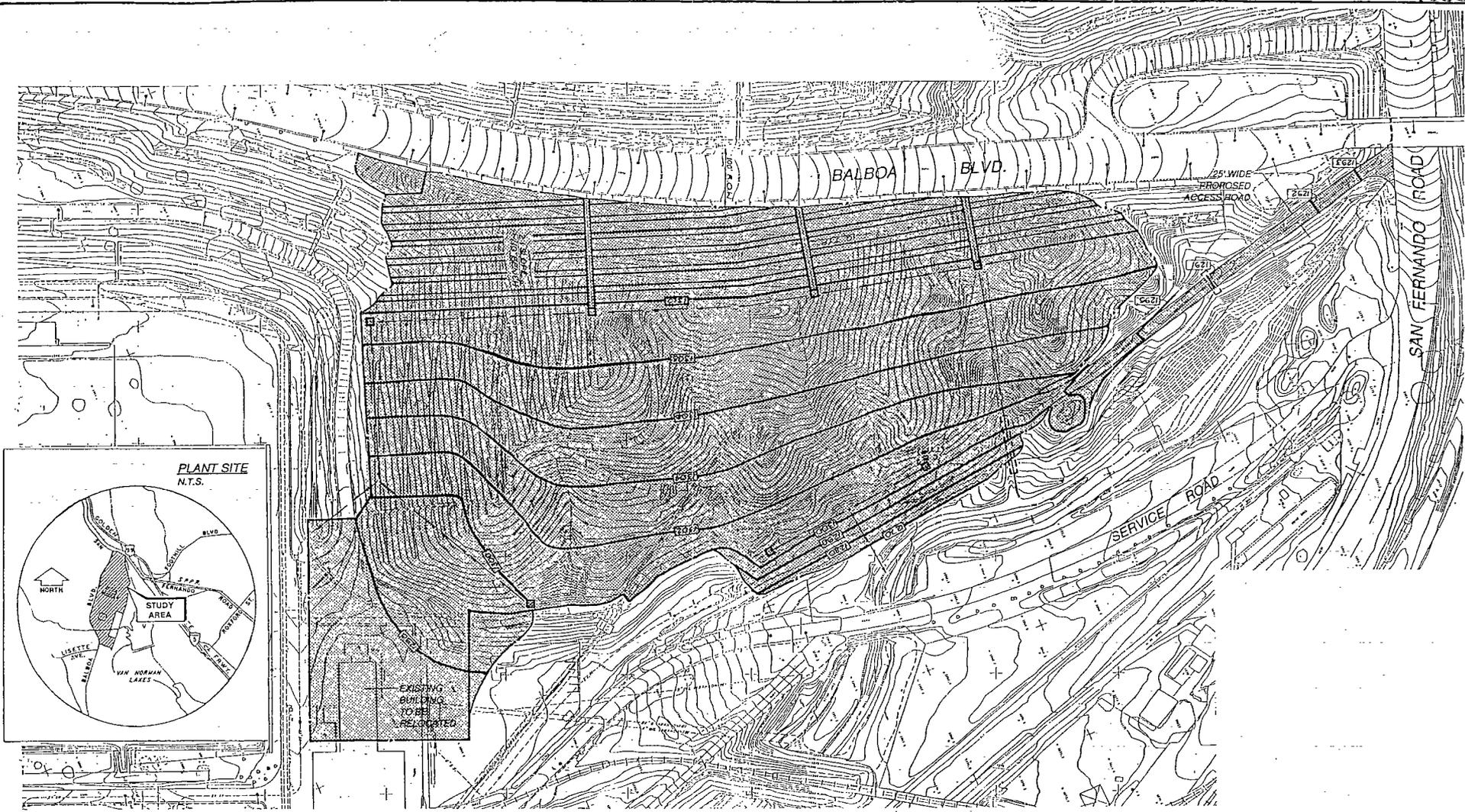
**LEGEND**

- |  |   |  |                                   |  |                                |  |                        |
|--|---|--|-----------------------------------|--|--------------------------------|--|------------------------|
|  | New Graded Area                                   |  | Existing Service Center Area      |  | Existing Graded Area           |  | Chemical Pipe Corridor |
|  | Ozone Contactors                                  |  | Ozone Contactor Overflow Pipeline |  | Service Center                 |  |                        |
|  | Liquid Oxygen Storage and Oxygen Separation Plant |  | Chemical Tank Farm                |  | Washwater Residuals Processing |  |                        |
|  | Ozone Generation Building                         |  | Contactor Effluent Conduit        |  |                                |  |                        |
|  | Return Washwater Pipeline                         |  |                                   |  |                                |  |                        |
|  | Influent Pipeline                                 |  |                                   |  |                                |  |                        |

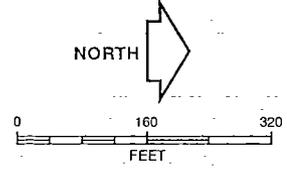


**FACILITIES LAYOUT  
OPTION 2**  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program

FIGURE 2



SOURCE: Metropolitan Water District.



**GRADING AND ACCESS PLAN**  
**- PROPOSED PROJECT**  
 Joseph P. Jensen Filtration Plant  
 Oxidation Retrofit Program

FIGURE 3

## 1.6.2 Ozonation System

The conversion of the principal disinfection system at the Jensen Plant from chlorine to ozone would involve the onsite production of ozone, which would require the construction of oxygen separation and ozone generation facilities. Ozone gas ( $O_3$ ) can be generated by passing purified air or oxygen ( $O_2$ ) through an electric field. In this process, oxygen passes through a uniformly charged air space that splits some of the oxygen molecules into two atoms of elemental oxygen. These atoms then recombine with other oxygen molecules to form the triatomic ozone molecule. Under the proposed design, ozone will be produced on-site by passing high purity oxygen gas through ozone generation equipment. Ozone generators for the treatment facility would be housed in a single, centralized building and would generate approximately 12,500 pounds of ozone per day. This building is currently planned to be located on the northern end of the graded pad, though it may be possible to locate it on top of one of the ozone contactors depending on final design.

Facilities to produce oxygen feed gas suitable for production of ozone are also proposed to be constructed on the Jensen Plant site. Metropolitan is currently evaluating two production methods: cryogenic and adsorption separation technologies. The cryogenic method employs extremely low temperatures to liquify air pumped through the system, a molecular sieve or a heat exchanger to remove impurities (water, carbon dioxide, and hydrocarbons), with oxygen and nitrogen gas then separated out through temperature and pressure controls (fractional distillation). A vacuum swing adsorption (VSA) system uses a molecular sieve to separate both nitrogen and impurities from the air stream. In both systems, the adsorbents require periodic regeneration by altering system conditions (temperature or pressure) to release (desorb) the gaseous nitrogen and impurities. Detailed descriptions of these alternative methods for oxygen separation are provided in Metropolitan Report No. 1043, *Oxygen Separation Technologies Study* (Black & Veatch, 1993).

Integral to the ozonation process are the ozone contactors, which are large concrete basins where ozone is diffused into the water. Ozone contactors at the plant would be constructed on a newly graded pad west of the existing plant warehouse and service center. Ozone off-gas equipment would be installed either on or adjacent to the contactors. This equipment, which consists of ozone destruction equipment and off-gas blowers, would process and vent excess gases from the ozone contactors to the atmosphere. Prior to the release of the gases to the atmosphere, the gas stream would pass through ozone destruction (thermal catalyst) units which would convert any remaining ozone in the gas stream to gaseous oxygen (at less than 0.1 ppm ozone). Ozone off-gas venting has been exempted from air quality permitting under Rule 219 of the South Coast Air Quality Management District.

The specific equipment installed at the plant site would depend on which feed gas production alternative is selected during the final design process. Major components of typical feed gas systems include such items as: blowers, compressors, vacuum pumps, absorbent vessels, cryogenic (low temperature) distillation equipment, piping and valves. Ozone generation

## 1.0 Project Description

equipment will be housed in a one- to two-story building. Some of the oxygen separation equipment will also be housed in a separate building, although a majority of the equipment will be constructed outdoors. If a cryogenic system is employed, the most prominent new facility will be the "cold box" tower, which will be approximately 50-75 feet above grade. If an adsorption system is used to separate oxygen, the tallest facilities will be approximately 25-30 feet above grade. Additional appurtenant facilities include a low profile ozone generator cooling water pump station and a potable water storage tank to be constructed under this project.

In addition to onsite generation of the feed gas, liquid oxygen would be stored onsite and may serve as a backup supply and/or may be used to peak the system's ozone production during high demand conditions. The liquid oxygen storage tank can also accept bulk deliveries of oxygen from truck or rail car. It is anticipated that trucks will be used to deliver the liquid oxygen, carrying approximately 4,500 gallons per load. The project is expected to use approximately 100 tons of gaseous oxygen per day.

A chemical pipe corridor will be installed from the Jensen Plant to the Los Angeles Department of Water and Power's Aqueduct Filtration Plant which is located in Sylmar, approximately 1 mile east of the Jensen Plant. The pipe corridor may include oxygen, sulfuric acid, and caustic soda pipelines. The oxygen pipeline (approximately 12 inches in diameter) would provide an interconnection between Metropolitan's and LADWP's plants to provide oxygen to either plant's ozone generators in case of oxygen generation facility shutdowns. The other pipelines would provide a similar emergency function.

It is anticipated that the pipelines would cross the Weldon Canyon Creek tributary to Bull Creek at the concrete lined channel portion between the existing access road and the railroad trestle and then continue eastward to the LADWP property. The pipelines are proposed to span the creek and the open channel aqueduct above ground, with the remaining portions buried. To avoid the possibility of chemical spillage, each aboveground pipeline at the creek crossing will be double-walled with a leak detection system inside the annular space between the two pipe walls where the pipelines are above ground. If there is a leak, an alarm will sound to identify the portion of the pipe that has a leak. The buried portions of the pipelines will also be double-walled pipe. As an alternative to the double-walled pipe system, a concrete pipe trench with a removable cover may be constructed. Within the LADWP property, the chemical pipe corridor would be buried in an existing roadway (Spacht, 1994). A maximum construction width of 15 feet would be necessary for the buried portions of the chemical pipe corridor. The approximate alignment of the chemical pipe corridor is shown in Figure 2.

### 1.6.3 Chemical Tank Farm

An existing chemical tank farm would be used in part to accommodate new chemicals required by the ozonation process. Additional chemical tank farm(s) for the storage of sulfuric acid and hydrogen peroxide would also be constructed. These chemicals would be used to optimize the ozonation process. The acid and caustic soda are used to adjust the water pH to avoid the formation of ozone byproducts, such as bromate. The tank farm will be designed to

prevent any spills within the tank farm area from leaving the plant site. A roof structure may be added to the tank farm area to divert rain water from the spill containment system.

Approximately 2000 feet of railroad track will be installed in the form of three additional rail sidings along the east side of the existing tank farm where the current sidings are located. These additional sidings will accommodate the upper limit of rail car deliveries that may be necessary under certain water quality conditions.

### **1.6.4 Emergency Generators**

Two additional emergency power engine/generator units are proposed to be added to the existing plant system to provide back-up power for the ozone process in the event of commercial electrical power failure at the plant. These generators would be fired by diesel fuel and generate approximately 2,000 kw for the ozone system. Since these units would be used only for emergency use, they are expected to be in service infrequently, typically only during testing and maintenance. The units are anticipated to be in service less than 200 hours on an annual average basis in accordance with the South Coast Air Quality Management District permitting requirements, and in continuous operation for a maximum of 0.5 day per year except during emergencies.

### **1.6.5 Supplemental Washwater Residuals Processing Facility**

The washwater residual processing facility would include belt presses and a natural gas-fired dryer. The thickened washwater solids would be pumped to a mechanical belt press which would increase the solids content to approximately 25 percent. Thickened washwater solids from the belt press would be sent to a natural gas-fired drying system which would increase the solids content to approximately 50 percent. Approximately 4-6 million Btus per hour of natural gas would be required. The gas dryer off-loads the thickened solids directly into truck beds within the interior of the building. An average of three to four truck trips per day will be needed to haul thickened solids to the nearest landfill.

### **1.6.6 Plant Rejection Facilities**

Additional plant rejection structures and pipelines would be constructed as part of this project to protect the new ozone facilities. Rejection means that water which would normally be moving through the plant is instead shunted in a controlled manner into drainage facilities because of accidental valve closure, pipe failure, or other upset conditions. Rejection is necessary to avoid excessive water pressure buildup in the treatment facility and subsequent structural damage or flooding. New rejection pipelines would convey water from the ozone contactors to the vicinity of existing discharge structures that are located adjacent to the plant site in Bull Creek. In the event of a plant rejection episode, the new rejection structures and pipelines would provide for the controlled release of water off the plant site. Existing plant rejection facilities which presently terminate in Bull Creek would be maintained in their current state.

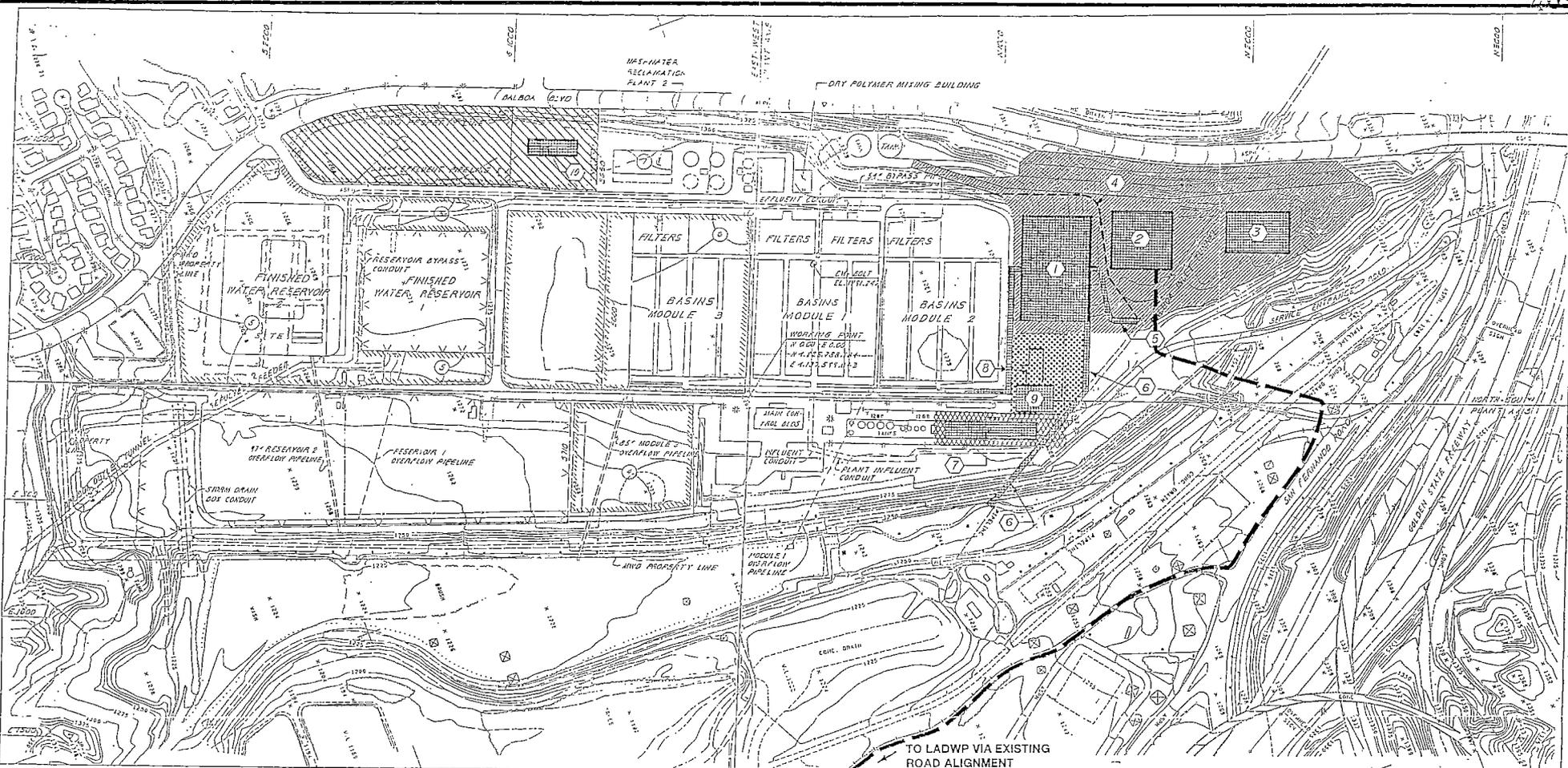
## 1.7 PROJECT LAYOUT

As discussed above, Metropolitan has defined a proposed project to accommodate the necessary project components based on preliminary site investigations. Two options are also under consideration for the final layout design (Figures 4 & 5). Table 1.7-1 describes the location of facilities for the proposed project and how these locations might vary as a result of implementing the optional site layouts.

**Table 1.7-1. Location of Project Components**

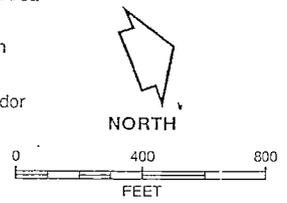
Location	Proposed Project (See Figure 2)	Option 1 (See Figure 4)	Option 2 (See Figure 5)
Proposed New Graded Area	<ul style="list-style-type: none"> <li>• Ozone Contactors</li> <li>• Liquid Oxygen Storage and Oxygen Separation Plant</li> <li>• Ozone Generation Building</li> </ul>	<ul style="list-style-type: none"> <li>• Ozone Contactors</li> <li>• Liquid Oxygen Storage and Oxygen Separation Plant</li> <li>• Ozone Generation Building</li> </ul>	<ul style="list-style-type: none"> <li>• Ozone Contactors</li> <li>• Liquid Oxygen Storage and Oxygen Separation Plant</li> <li>• Ozone Generation Building</li> </ul>
Existing Graded Area east of Balboa Boulevard	<ul style="list-style-type: none"> <li>• Service Center and Warehouse</li> <li>• Wastewater Residual Processing Facility</li> </ul>	<ul style="list-style-type: none"> <li>• Wastewater Residual Processing Facility</li> </ul>	<ul style="list-style-type: none"> <li>• Service Center and Warehouse</li> <li>• Wastewater Residual Processing Facility</li> </ul>
Existing Service Center Area	<ul style="list-style-type: none"> <li>• Chemical Tank Farm</li> <li>• Ozone Contactor Overflow Pipeline</li> </ul>	<ul style="list-style-type: none"> <li>• Service Center and Warehouse</li> <li>• Ozone Contactor Overflow Pipeline</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical Tank Farm</li> <li>• Ozone Contactor Overflow Pipeline</li> </ul>
Existing Tank Farm Area	No Change	<ul style="list-style-type: none"> <li>• Chemical Tank Farm expanded to north</li> </ul>	No Change

Option 1 differs from the proposed project in that the service center/warehouse would remain in its current location and the additional chemical storage tanks would be accommodated by a northward expansion of the existing tank farm (Figure 4, Item 5).



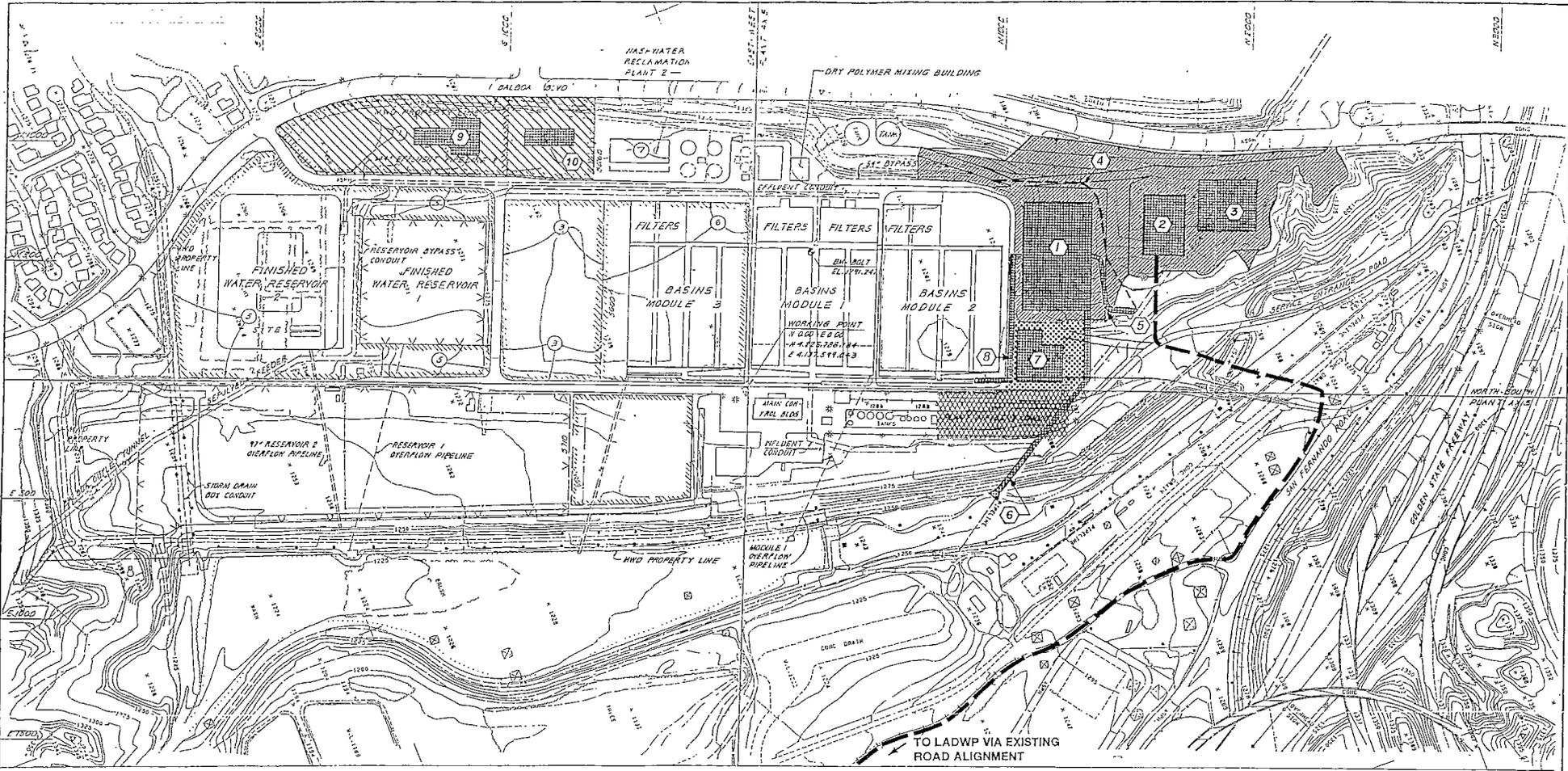
SOURCE: Metropolitan Water District.

- LEGEND**
- |  |   |  |                                   |  |                                 |  |                         |
|--|---|--|-----------------------------------|--|---------------------------------|--|-------------------------|
|  | New Graded Area                                   |  | Existing Service Center Area      |  | Existing Graded Area            |  | Existing Tank Farm Area |
|  | Ozone Contactors                                  |  | Ozone Contactor Overflow Pipeline |  | Wastewater Residuals Processing |  | Chemical Tank Farm      |
|  | Liquid Oxygen Storage and Oxygen Separation Plant |  | Contactor Effluent Conduit        |  | Chemical Pipe Corridor          |  |                         |
|  | Ozone Generation Building                         |  | Service Center                    |  |                                 |  |                         |
|  | Return Wastewater Pipeline                        |  |                                   |  |                                 |  |                         |
|  | Influent Pipeline                                 |  |                                   |  |                                 |  |                         |

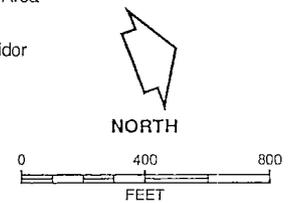
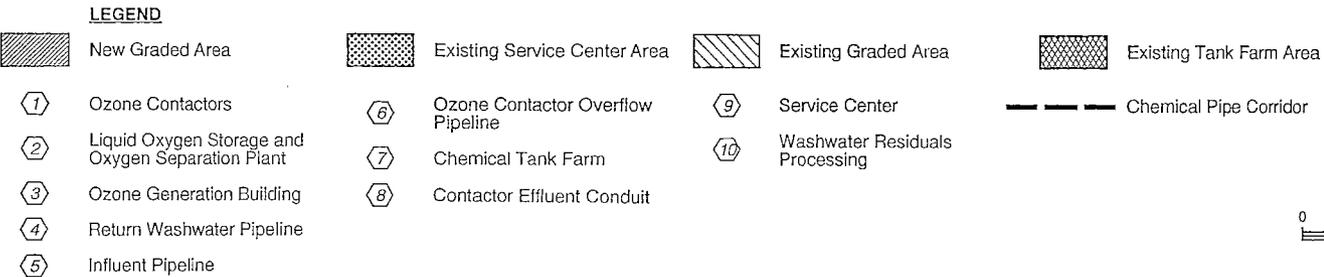


**FACILITIES LAYOUT  
OPTION 1**  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program

FIGURE 4



SOURCE: Metropolitan Water District.



**FACILITIES PLAN  
PROPOSED PROJECT**  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program

FIGURE 5

## 1.0 Project Description

The general location of facilities under Option 2 is the same as for the proposed project, but this option differs in the configuration of the new pad to be graded in the existing hillside (Figure 5). Under this option, grading would create an upper and lower pad area with the ozone contactors occupying the lower pad. The liquid oxygen storage, oxygen separation plant, and ozone generation building would occupy the upper pad. This option would decrease the amount of material to be removed from the site from 1.43 million cubic yards to 1.15 million cubic yards.

Two vehicular access road options (and alternative grading plans) are also under consideration besides the proposed route from San Fernando Road. Option A would include a new plant access road over Bull Creek from the existing service road (Figure 6). This option would decrease the amount of grading necessary at the plant site such that 1.3 million cubic yards of excess earth material would need to be exported. Option B would include a new plant access road from Balboa Boulevard that would form the fourth leg of an existing "T"-intersection (Figure 7). The pad area and amount of grading under Option B would be the same as the proposed project.

### 1.8 PROJECT CONSTRUCTION

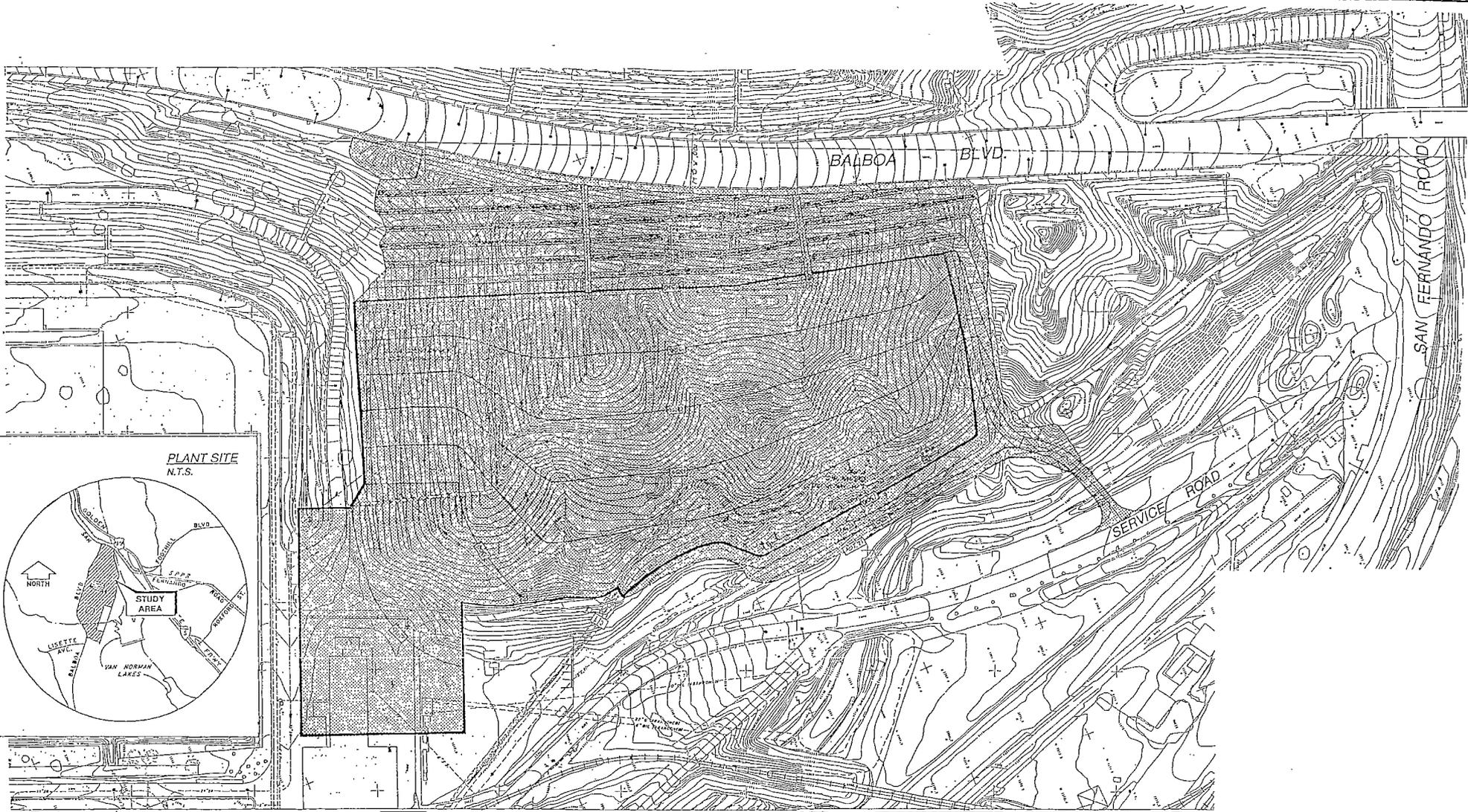
The anticipated schedule for the project indicates that construction will begin in the first quarter of 1995 with the site earthwork. Construction of the plant facilities will commence in mid-1996 and continue to mid- to late 1998. A substantial amount of earthwork would be required at the north end of the plant site. The earthwork would include exporting approximately 1.4 million cubic yards of earth from the plant site and grading the area to create a pad for the ozone related equipment (Figure 3). The new pad created by this excavation will be approximately 50 to 70 feet below Balboa Boulevard. To comply with the significance threshold limits for air emissions ( $\text{NO}_x$ ) established by the South Coast Air Quality Management District, the construction has been phased to use approximately 217 truck trips per day for a period of about 78 weeks. The reduced volumes of material removed under Options 2 and A would reduce this estimated site grading time to 63 and 72 weeks, respectively. The following pieces of construction equipment are assumed to be used during excavation and/or construction:

- Wheeled loaders
- Tracked tractors (dozers)
- Self-loading scraper
- Medium sized wheel-type crane
- Large track-type crane
- Small wheel-type backhoe
- Large track-type backhoe (excavator)
- Forklift
- Concrete pumping truck
- Barber-Green asphalt paving machine
- Wheel-type road grader
- Water truck

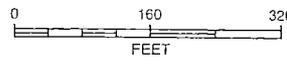
## 1.0 Project Description

Access to the plant site for construction of the project would be limited to the existing San Fernando Road entrance gate. A permanent ingress and egress route would be constructed along the existing LADWP easement and exit at a new "T"-intersection with San Fernando Road (Figure 2). A haul road would be constructed by the contractor within the plant limits and all earthwork would be limited to normal working hours. Excess earth material would be disposed by the contractor at the nearest available site. The Sunshine Canyon Landfill (2.5 miles round trip) has been used in the past for disposal of excess earth material and is the nearest disposal site; however, it is currently closed. Based upon discussions with construction contractors, it is assumed that a disposal site could be found within a six mile radius of the plant site. Should the Sunshine Canyon Landfill reopen during construction, construction phasing and the number of truck trips would be adjusted to meet South Coast Air Quality Management District threshold limits.

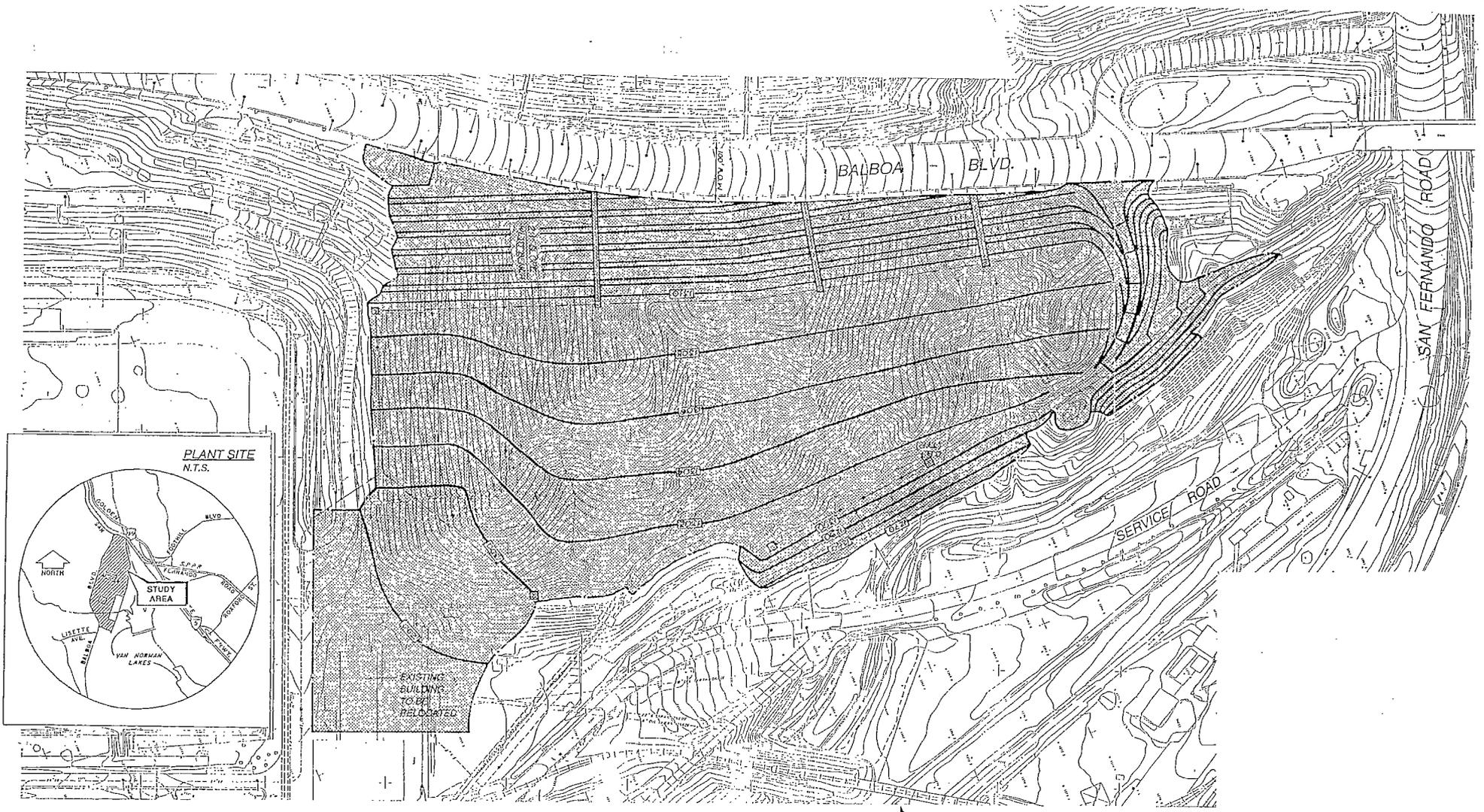
The project would generate approximately 150 construction jobs. Upon completion, the new facilities would need to be operated 24 hours a day. The ozonation facility would require two to three permanent new maintenance employees and eight to ten operations personnel and the washwater residuals facility would require approximately two additional operations staff.



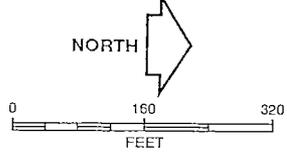
SOURCE: Metropolitan Water District.



**GRADING AND ACCESS PLAN  
- OPTION A**  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program



SOURCE: Metropolitan Water District.



**GRADING AND ACCESS PLAN  
- OPTION B**  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program

FIGURE 7

## 2.0 ENVIRONMENTAL CHECKLIST

The following checklist is used as an aid to identify potential environmental issues. Section 3 contains a complete discussion of each issue whether or not each issue represents a significant impact.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
<b>2.1 EARTH.</b> <i>Will the proposal result in:</i>			
a) Unstable earth conditions or changes in geologic sub-structures?		X	
b) Disruptions, displacements, compaction, or overcovering of the soil?	X		
c) Change in topography or ground surface relief features?	X		
d) The destruction, covering, or modification of any unique geologic or physical features?			X
e) Any increase in wind or water erosion of soils, either on or off the site?	X		
f) Changes in deposition or erosion of beach sands, or changes in siltation, deposition, or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet, or lake?		X	
g) Exposure of people or property to geologic hazards, such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	X		
<b>2.2 AIR.</b> <i>Will the proposal result in:</i>			
a) Substantial air emissions or deterioration of ambient air quality?	X		
b) The creation of objectionable odors?		X	
c) Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?			X
<b>2.3 WATER.</b> <i>Will the proposal result in:</i>			
a) Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			X
b) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	X		
c) Alterations to the course or flow of flood waters?		X	
d) Changes in the amount of surface water in any water body?		X	
e) Discharge into surface waters, or in any alteration of surface water quality, including, but not limited to, temperature, dissolved oxygen, or turbidity?		X	

## 2.0 Environmental Checklist

	<i>Yes</i>	<i>Maybe</i>	<i>No</i>
f) Alteration of the direction or rate of flow of ground waters?			X
g) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?			X
h) Substantial reduction in the amount of water otherwise available for public water supplies?			X
i) Exposure of people or property to water-related hazards such as flooding or tidal waves?			X
<b>2.4 PLANT LIFE.</b> <i>Will the proposal result in:</i>			
a) Change in the diversity of species, or number or any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	X		
b) Reduction of the numbers of any unique, rare, or endangered species of plants?		X	
c) Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?			X
d) Reduction in acreage of any agricultural crop?			X
<b>2.5 ANIMAL LIFE.</b> <i>Will the proposal result in:</i>			
a) Change in the diversity of species, or numbers of any species of animals (birds; land animals, including reptiles; fish and shellfish, benthic organisms or insects)?	X		
b) Reduction of the numbers of any unique, rare, or endangered species or animals?			X
c) Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?			X
d) Deterioration to existing fish or wildlife habitat?		X	
<b>2.6 NOISE.</b> <i>Will the proposal result in:</i>			
a) Increases in existing noise levels?		X	
b) Exposure of people to severe noise levels?		X	
<b>2.7 LIGHT and GLARE.</b> <i>Will the proposal:</i>			
a) Produce new light or glare?		X	
<b>2.8 LAND USE.</b> <i>Will the proposal result in:</i>			
a) Substantial alteration of the present or planned use of an area?			X

## 2.0 Environmental Checklist

	Yes	Maybe	No
<b>2.9 NATURAL RESOURCES.</b> <i>Will the proposal result in:</i>			
a) Increase in the rate of use of any natural resources?			X
<b>2.10 RISK OF UPSET.</b> <i>Will the proposal involve:</i>			
a) A risk of an explosion or the release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions:	X		
b) Possible interference with an emergency response plan or an emergency evacuation plan?			X
<b>2.11 POPULATION.</b> <i>Will the proposal:</i>			
a) Alter the location, distribution, density or growth rate of the human population of an area?			X
<b>2.12 HOUSING.</b> <i>Will the proposal:</i>			
a) Affect existing housing, or create a demand for additional housing?			X
<b>2.13. TRANSPORTATION/CIRCULATION.</b> <i>Will the proposal result in:</i>			
a) Generation of substantial additional vehicular movement?		X	
b) Effects on existing parking facilities, or demand for new parking?			X
c) Substantial impact upon existing transportation systems?		X	
d) Alterations to present patterns of circulation or movement of people and/or goods?			X
e) Alterations to waterborne, rail or air traffic?			X
f) Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?		X	
<b>2.14 PUBLIC SERVICES.</b> <i>Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:</i>			
a) Fire protection?			X
b) Police protection?			X
c) Schools?			X
d) Parks or other recreational facilities?			X
e) Maintenance of public facilities, including roads?			X
f) Other governmental services?			X

## 2.0 Environmental Checklist

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
<b>2.15 ENERGY.</b> <i>Will the proposal result in:</i>			
a) Use of substantial amounts of fuel or energy?	X		
b) Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?			X
<b>2.16 UTILITIES and SERVICE SYSTEMS.</b> <i>Will the proposal result in a need for new systems, or substantial alterations to the following utilities:</i>			
a) Power or natural gas?			X
b) Communications systems?			X
c) Water?			X
d) Sewer or septic tanks?			X
e) Storm water drainage?			X
f) Solid waste and disposal?			X
<b>2.17 HUMAN HEALTH.</b> <i>Will the proposal result in:</i>			
a) Creation of any health hazard or potential health hazard (excluding mental health)?		X	
b) Exposure of people to potential health hazards?		X	
<b>2.18 AESTHETICS.</b> <i>Will the proposal result in:</i>			
a) The obstruction of any scenic vista or view open to the public?			X
b) The creation of an aesthetically offensive site open to public view?		X	
<b>2.19 RECREATION.</b> <i>Will the proposal result in:</i>			
a) Impact upon the quality or quantity of existing recreational opportunities?			X
<b>2.20 CULTURAL RESOURCES.</b> <i>Will the proposal result in:</i>			
a) Result in the alteration of or the destruction of a prehistoric or historic archaeological site?			X
b) Result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?			X
c) Have the potential to cause a physical change which would affect unique ethnic cultural values?			X
d) Restrict existing religious or sacred uses within the potential impact area?			X

### 3.0 DISCUSSION OF ENVIRONMENTAL ISSUES

The following discussion provides an explanation of each answer indicated in the preceding Section 2 - Environmental Checklist Form. The reasoning presented in response to questions relating to biological resources and noise was based on specific technical surveys of the area. Technical studies that support the conclusions contained in this text are available for review at The Metropolitan Water District of Southern California, 350 S. Grand Avenue, Los Angeles, California. Please contact Ms. Deirdre West at (213) 217-6696 to make arrangements to review technical documents as needed. The following key technical reports were prepared as part of the environmental documentation used to complete the Environmental Checklist:

- Fugro West, Inc., 1994, *Air Quality Technical Appendix*
- Veneklasen and Associates, 1994, *Ozone Generation Plant Noise Study - MWD Jensen Filtration Plant*
- Sweetwater Environmental Biologists, Inc., 1994, Letter report titled *Coastal California Gnatcatcher Assessment for the Jensen Plant*, March 31.

#### 3.1 EARTH

The Jensen Plant site is underlain by Plio-Pleistocene to Recent sediments. The Recent sediments consist of artificial fill materials of varying compositions and thicknesses. The fill materials are located at the toe of an existing cut slope at the north end of the existing facility, and widen to cover almost the entire width of the southern portion of the plant (Woodward-Clyde Consultants [WCC], 1989a). Thicknesses of artificial fill materials increase to the south and east within the plant and range from about 20 to 55 feet (WCC, 1989a). Composition of artificial fill materials is similar to its Saugus Formation source and the fill materials were found to be generally dense (WCC, 1989a).

Pleistocene to Holocene-age sediments underlying the Jensen facility include alluvium and landslide debris. The alluvium was deposited by the adjacent drainage and from the former debris basins that were located beneath the southeastern corner of the plant (WCC, 1989a). The alluvium underlies the artificial fill materials and is exposed along the southeastern margin of the facility. The alluvium is composed of loose silty sand, sandy silt, and silty clay with local organic-rich interbeds. Alluvial thicknesses range from a few feet, along the western plant margin, to about 40 feet thick along the eastern portion of the facility (WCC, 1989a).

Landslide debris has been mapped on the slope at the northern end of the facility site (Stone Geological Service, Inc., 1966; Leroy Crandall and Associates, 1991). The landslide debris is composed of sandstone, siltstone, and conglomeratic rocks derived from the Saugus Formation, and reaches a maximum thickness of about 70 feet (LeRoy Crandall and Associates, 1991).

Underlying the alluvium is the Plio-Pleistocene-age Saugus Formation. The Saugus Formation is exposed in cut slopes located in the northeastern portion of the facility and in slopes

located at the southernmost extent of the plant. The Saugus Formation rocks consist of siltstone, sandstone, and conglomeratic rocks with local claystone interbeds (WCC, 1989a). Claystone interbeds may be discontinuous (WCC, 1989a). The unweathered to slightly weathered Saugus Formation is generally dense and has shear wave velocities of around 2,500 feet per second. Moderately to highly weathered Saugus Formation is less competent and exhibits geotechnical properties similar to the alluvium beneath the site. The Saugus Formation may weather to depths of up to 40 feet.

The Jensen facility is situated on the northern limb of a broad, northeast trending syncline (a regional downwarping). Consequently, the bedding orientation of the underlying Saugus Formation rocks ranges from about 20 to 70 degrees east of north with dips ranging from about 23 to 25 degrees toward the southeast (Stone Geological Service, Inc., 1966).

*Item a)* The majority of the improvements associated with the proposed project would be located at the site of an existing small hill which comprises approximately 13.5 acres at the northernmost portion of the Jensen Plant. The hill is comprised of natural and excavated slopes consisting of alternate layers of poorly consolidated siltstone, sandstone, and conglomerate bedrock of the Saugus Formation, with some overlying ancient landslide material.

The results of geologic mapping conducted by WCC (1989b), indicate that the extent of landslide debris remaining in the study area after the grading work for the existing slopes appears to be significantly less than anticipated in previous studies (Stone, 1966). Much of the landslide debris that appears to have formed a "cap" on the original hill has been removed by prior grading (WCC, 1989b). Based on the proposed grading plans, most if not all of the remaining landslide debris material would be removed.

The Saugus Formation is exposed in the existing slope of this hill and will be further exposed by the proposed grading of approximately 2:1 (horizontal to vertical) cut slopes surrounding a broad pad, on which the ozone contactors, liquid oxygen storage and oxygen separation plant, and ozone generation building will be built under the proposed project. The Saugus Formation in this area is adversely oriented relative to the proposed cut and is anticipated to have an out-of-slope dip component. In addition, discontinuous clay interbeds have been observed in the Saugus Formation in this area (Stone Geological Service, Inc., 1966). Slope failures have occurred in the Saugus Formation rocks exposed in the 1.5:1 cut slopes located west of Balboa Boulevard (WCC, 1989a). The existing cut slope located west of the access road at the top of the hill failed downslope during the recent (January 17, 1994) Northridge earthquake. That dynamically induced slope failure, probably in the ancient landslide material, moved approximately 1 foot toward the southeast, cracking existing drainage benches. The failure extended back to the west-facing cut slope adjacent to Balboa Boulevard.

WCC (1989b) observed only discontinuous fine-grained interbeds within the existing slope. Based on their assumption that those interbeds are discontinuous and an examination of existing east- and south-facing cut slopes at the base of the hill showed no evidence of surficial slope instability, except for minor localized sloughs, WCC concluded that the adverse bedding

### 3.0 Discussion Of Environmental Issues

dips would not by themselves result in slope instability. WCC also rendered an opinion that the slopes should be stable under static conditions and would not move significantly under near-field dynamic conditions. In the early 1990's, the southeast portion of the currently proposed grading area was excavated and benched. Metropolitan has observed no evidence of either slope failure or deterioration of this new slope. However, if relatively continuous interbeds are present, the proposed 2:1 slopes on the west side of the ozonation facilities pad may be subject to failure. Additional geotechnical investigations are to be conducted to further evaluate the extent of such interbedding and determine appropriate design measures.

Excavation and construction will modify existing topographic grades in all project areas and the potential for slope instabilities during construction will also be evaluated in a detailed geotechnical investigation. If slope stability is a concern during excavations, the project design will incorporate the necessary measures to avoid the problems and/or use standard construction techniques such as shoring and slope grade reduction to remediate localized site conditions.

Slope stability is not a significant concern at either the existing tank farm or the existing service center since these facilities are on relatively level, graded land. Slope stability is also not a concern for the siting of the washwater residuals building or the relocation of the service center (proposed project and Option 2) to the flat sites located near the Balboa Boulevard entrance.

The proposed chemical pipe corridor to connect the Jensen Plant with the LADWP facilities would cross the Weldon Canyon Creek tributary as suspended pipelines, with the remaining main portion of any pipeline being buried. Final engineering and design for this project component will reflect the results of the geotechnical investigation and incorporate the appropriate safeguards to avoid areas subject to liquefaction. If such areas cannot be avoided, the buried pipelines will incorporate sufficient measures to withstand the anticipated level of seismic activity.

The mitigation program for earth resources will include the completion of a pre-development site-specific geotechnical investigation by a qualified geotechnical engineer. The geotechnical report will more fully evaluate the geologic conditions that may be exposed if the proposed cut slope is excavated. At a minimum, the study will include adequate exploration to assess the presence or absence of fine-grained interbeds in the Saugus Formation and related slope stability issues. In addition, slope stability evaluations for the proposed cut slope will include both static and dynamic evaluations. The geotechnical report will include any necessary measures to remediate the localized slope stability issues. Such recommendations could include the following types of measures:

- Overexcavation of unsuitable base materials and replacement with approved and properly compacted structural fill.
- Appropriate design, location, and construction of erosion control methods and devices.

### 3.0 Discussion Of Environmental Issues

- Restrictions on construction methods and structure and ancillary facility design and location based on any determined onsite hazards.
- Design of surface and subsurface drainage devices.
- Adherence to all California Uniform Building Code (UBC) and other appropriate restrictions regarding construction methods and materials.
- Appropriate treatment of compacted and disturbed areas to facilitate reclamation and reduce erosion potential.

*Item b)* The proposed project would entail a substantial amount of earthwork in the northern portion of the plant. The earthwork would include removing approximately 1.3 million cubic yards of earth from the plant site to create a 13.5 acre pad to house the proposed improvements. For the purposes of this analysis, it was assumed that all excess excavated material would be hauled to an authorized disposal site within a 6-mile radius of the proposed project. This disruption of the soil surface could cause significant erosion problems during construction, however, sufficient Best Management Practice's (BMPs) to control soil erosion will be employed to prevent such erosion.

*Items c,d)* A small hill would be removed by the proposed project. The natural portion of the hill is covered by sage scrub vegetation and has been previously identified as an ancient landslide by various geologic reports. The east and south side of this hill was previously graded during initial plant construction and subsequent expansion. The west side of the hill was originally graded when Balboa Boulevard was constructed in its present alignment in the early 1960's. This small hill is not a unique geologic or physical feature, nor does it serve as a landmark feature due to the higher ridgelines to the north and west. The removal of this hill is not considered a significant impact on geologic features of the area. All other proposed project facilities and alternative sitings would be located on previously graded areas.

*Items e,f)* Construction of the proposed improvements would increase the amount of impervious cover on the facility site by approximately 11 acres. This increase would result in changes to existing flow paths and would increase storm runoff volumes, peak flows, and velocities. Surface drainage from the site would be controlled by drainage systems included in the project design. Surface runoff would be directed into Weldon Canyon Creek and eventually to Bull Creek. The amount of surface runoff the proposed project would generate is not expected to modify the bed of Bull Creek.

*Item g)* The project area is located in a tectonically active area of southern California. Consequently, numerous faults and folds are located within rocks of the project region. No known faults have been mapped crossing the facility; however, the active Santa Susana fault has been mapped about 250 feet west of Balboa Boulevard (Stone Geological Service, Inc., 1963). A characteristic near-field seismic event of Magnitude 7 has been estimated from the nearby San

### 3.0 Discussion Of Environmental Issues

Fernando fault, and a characteristic far-field seismic event of Richter Magnitude 8+ has been estimated from the San Andreas fault. The proposed project will be subjected to strong ground motion from local and regional fault ruptures and the proposed structures will be designed to reduce the potential for damage associated with the anticipated level of strong groundshaking in conformance with the UBC.

Portions of the existing plant that are underlain by alluvium or highly weathered Saugus Formation if in the presence of shallow groundwater may be subjected to liquefaction (dynamically induced settlement and/or lateral spreading) during seismic events. WCC (1989a) reports that major portions of the alluvial soils underlying the Jensen Plant likely liquefied during the 1971 San Fernando earthquake and may liquefy during a near-field Magnitude 7 and far-field Magnitude 8+. Based on observations made at the site following the Northridge earthquake, some areas underlain by alluvium appear to have moved laterally toward the east and to have settled, thus suggesting that liquefaction and lateral spreading might have occurred in the eastern portions of the Jensen Plant site. However, no movement was observed at the existing tank farm, which is located on fill material.

The washwater residuals building and the relocated service center (proposed project and Option 2) are situated in an area of alluvium, the upper portion of which was removed during past grading operations. Therefore, there may be potential for liquefaction in this area as it is for the existing service center and tank farm areas. Recent subsurface mitigation actions at the site related to the ongoing expansion of the Jensen Plant may have reduced the potential for liquefaction at these sites. The geotechnical report will further investigate this geohazard and include specific recommendations regarding the potential for liquefaction at these sites and appropriate design measures to reduce this geohazard.

While liquefaction is not a concern at the proposed new pad area, WCC (1989b) indicated that the proposed cut slopes could move significantly under far-field earthquake shaking conditions, but "such movements are considered to be unimportant for the site in general." However, the geotechnical investigation will further investigate slope stability as discussed above and provide specific design recommendations if necessary to alleviate any potential problems.

#### 3.2 AIR

The project site is located in the South Coast Air Basin, which is a non-attainment area for ozone, carbon monoxide, nitrogen dioxide, and fine particulates ( $PM_{10}$ ). Data on existing air quality in the South Coast Air Basin is monitored by a network of air monitoring stations operated by the California Environmental Protection Agency, Air Resources Board (ARB) and the South Coast Air Quality Management District (SCAQMD). No air monitoring stations are in the vicinity of the proposed project, with the closest station located in Reseda approximately eight miles south of the project site (Table 3.2-1). However, since the Reseda station does not monitor  $PM_{10}$ , this data is from the Burbank station. Actual ambient air quality conditions at the Jensen Plant may vary from these data since the Plant's proximity to the Tejon Pass probably

### 3.0 Discussion Of Environmental Issues

subjects the project site to higher average wind speeds. The intermittent windy conditions at the project site can generate substantial amounts of dust.

Two pollutants (ozone and PM<sub>10</sub>) are of particular interest because State air quality standards for these pollutants are regularly exceeded in the project area. State air quality standards for NO<sub>2</sub> (1 hour) are rarely exceeded. Table 3.2-1 lists the monitored maximum concentrations and number of exceedances of State and Federal air quality standards for the years 1990, 1991, and 1992.

**Table 3.2-1. Air Quality Standard Exceedances**

	1990	1991	1992
<b>Ozone - Reseda (ppm)</b>			
Worst Hour	0.19	0.22	0.17
Number of State Exceedances (Hours/Days > 0.09 ppm)	406/108	435/100	273/82
Number of Federal Exceedances (Hours/Days > 0.12 ppm)	113/41	155/53	54/25
<b>Carbon Monoxide - Reseda (ppm)</b>			
Worst Hour	19.0	16.0	13.0
Number of State Exceedances (Hours>20 ppm)	0	0	0
Number of State Exceedances (8 hours>9 ppm)	12	9	1
<b>Nitrogen Dioxide - Reseda (ppm)</b>			
Worst Hour	0.19	0.17	0.17
Number of State Exceedances (Hours>0.25 ppm)	0	0	0
<b>PM<sub>10</sub> - Burbank (micrograms per cubic meter)</b>			
Worst Sample	161	133	222
Number of State Exceedances (Samples>50)	28	30	18
Annual Geometric Mean (Standard is 30)	47.6	49.0	42.0
Annual Arithmetic Mean (Standard is 50)	52.3	54.9	49.0

Source: Air Resources Board, California Air Quality Data, Summary of 1990, 1991 and 1992 Air Quality Data

*Item a)* The SCAQMD has adopted thresholds (SCAQMD, 1993) to determine the significance of an air quality impact. These thresholds are based upon significance levels contained in the Federal Clean Air Act for extreme non-attainment areas for ozone. Different thresholds are given for operational emissions and construction emissions and the appropriate thresholds were used below to assess the significance of the project's emissions.

**Construction Impacts.** Construction-related air quality impacts would be generated for the duration of the construction period. Construction of the project components for the oxidation retrofit program and washwater residuals facility would occur for about 2.5 - 3 years at varying levels of intensity. Since peak daily and quarterly emissions would occur during the site preparation phase, this phase was selected for analysis and comparison to the construction thresholds. Both exhaust and particulate matter (dust) emissions were estimated and the methodology employed and calculations are detailed in the Air Quality Technical Appendix. To

### 3.0 Discussion Of Environmental Issues

partially reduce the heavy equipment air emissions (NO<sub>x</sub> and PM<sub>10</sub>) to below the quarterly threshold levels, the proposed duration of the site grading was lengthened to approximately 18 months. The total unmitigated construction emissions based on the lengthened schedule are listed in Table 3.2-2.

**Table 3.2-2. Total Unmitigated Construction Emissions**

Source	Pollutant									
	ROG		CO		NOx		SOx		PM <sub>10</sub>	
	lb/day	Ton/Qtr	lb/day	Ton/Qtr	lb/day	Ton/Qtr	lb/day	Ton/Qtr	lb/day	Ton/Qtr
Equipment Exhaust	9.5	0.3	25.5	0.7	85.1	2.3	9.0	0.2	7.9	0.2
On-Road Trucks	7.9	0.3	117.3	3.8	30.8	1.0	1.9	0.1	3.3	0.1
Bulldozing (dust)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.4	1.9
Batch Drop (dust)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	0.6
Wind Erosion (dust)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	356.4	16.0
<b>TOTAL</b>	<b>17.4</b>	<b>0.6</b>	<b>142.8</b>	<b>4.5</b>	<b>115.9</b>	<b>3.3</b>	<b>10.9</b>	<b>0.3</b>	<b>445.3</b>	<b>18.8</b>
SCAQMD Threshold	75	2.5	550	24.75	100	2.5	N/A	6.75	150	6.75

Since these emissions would still exceed the SCAQMD daily and quarterly construction emissions thresholds for NO<sub>x</sub> and PM<sub>10</sub>, the following additional measures have been incorporated into the project.

- a. The generation of excessive dust during demolition or construction with the potential to cause a nuisance to persons nearby the project area will be avoided in accordance with SCAQMD Rule 402. Compliance will be achieved by twice daily watering of active portions of the project site.
- b. The project will comply with SCAQMD Rule 403 which limits the emissions of fugitive dust. Compliance will be achieved through the removal of dust from equipment prior to movement on paved streets or the prompt removal of any material deposited on paved streets. Specifically, trucks transporting earth material offsite will be covered or maintain at least two feet of freeboard and paved streets adjacent to the construction site will be swept as needed to remove dust and silt that may have accumulated as a result of construction activities.
- c. Electrical power for construction activities will be obtained from power poles instead of electrical generators (when feasible).
- d. All construction requiring heavy equipment shall be curtailed during second stage smog alerts.

### 3.0 Discussion Of Environmental Issues

- e. The plans and specifications for the project will require the construction contractor to provide tracked tractors, wheeled loaders and scrapers that will be operated using two-degree engine timing retard and high pressure injectors.

Implementation of mitigation measures a and b are expected to reduce fugitive dust from bulldozing and batch drop operations by 94 percent, assuming the soil moisture would be increased from 2 to 15 percent. Fugitive dust from wind erosion would be reduced by about 72 percent, assuming water is applied at a rate of 0.05 gallons per square yard per hour. Full implementation of the 2-degree engine timing retard and high pressure injectors for heavy offroad construction equipment would reduce NO<sub>x</sub> emissions by 40 percent and ROC emissions by 15 percent (Santa Barbara County APCD 1992, Southwest Research Institute 1991). Residual construction emissions based on the lengthened construction schedule and these measures (Table 3.2-3) would be less than the SCAQMD significance thresholds and are considered less than significant.

**Table 3.2-3. Mitigated Construction Emissions**

Source	Percent Control				Mitigated Emissions							
	ROC	CO	NO <sub>x</sub>	PM <sub>10</sub>	ROC		CO		NO <sub>x</sub>		PM <sub>10</sub>	
					lb/day	Ton/Qtr	lb/day	Ton/Qtr	lb/day	Ton/Qtr	lb/day	Ton/Qtr
Heavy Equipment	15.0	0.0	40.0	0.0	8.1	0.3	25.5	0.7	51.1	1.4	7.9	0.2
On-Road Trucks	0.0	0.0	0.0	0.0	7.9	0.3	117.3	3.8	30.8	1.0	3.3	0.1
Bulldozing	0.0	0.0	0.0	94.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.1
Batch Drop	0.0	0.0	0.0	94.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	<0.1
Wind Erosion	0.0	0.0	0.0	72.0	0.0	0.0	0.0	0.0	0.0	0.0	99.8	4.5
<b>TOTAL</b>					16.0	0.6	142.8	4.5	81.9	2.4	115.7	4.9
<b>SCAQMD Threshold</b>					75	2.5	550	24.75	100	2.5	150	6.75

**Operation Impacts.** The proposed oxidation retrofit program improvements would include ozone off-gas equipment, which consists of ozone destruction equipment and off-gas blowers. This equipment would process and vent excess gases from the ozone contactors to the atmosphere. Prior to the release of the gases to the atmosphere, the gas stream would pass through ozone destruction (thermal catalyst) units which would convert any remaining ozone in the gas stream to gaseous oxygen (at less than 0.1 ppm ozone). This procedure would ensure that the gases vented to the atmosphere comply with the regulatory limits set by the SCAQMD. The ozonation portion of the project is exempted from permitting by SCAQMD Rule 219 (d)(4). The impact of ozone emissions on regional attainment of the State ozone standard is expected to be less than significant.

### 3.0 Discussion Of Environmental Issues

Two emergency diesel powered generators are proposed to provide back-up power for the ozone process in the event of commercial electrical power failure at the plant. These generators would generate approximately 2,000 kw for the ozone system. Since they would be used only for emergency use, they are expected to be in service infrequently, typically only during testing and maintenance. The units are expected to be in service less than 200 hours on an average annual basis, in accordance with SCAQMD permitting [Rule 1110.1 (g)(2)]. The units would be in continuous operation for a maximum of 0.5 days per year, except during emergencies. Based on the projected limited use of the diesel powered generators, they are not expected to create a significant impact to air quality.

The washwater residuals building will employ a gas dryer to further dewater the residuals prior to disposal off the site. Emissions for the gas dryer are estimated based on a maximum consumption rate of 6 million Btu per hour and are shown in Table 3.2-4.

The new facilities would generate employment opportunities for operators and maintenance personnel. The transportation of employees to the new facilities will require additional vehicle trips and the associated emissions. It is assumed that each employee would make two trips per day for a total of 22 trips and an additional 4 truck trips per day are anticipated to remove residual solids. The vehicle emissions are presented in Table 3.2-4 and the methodology used and calculations are documented in the Air Quality Technical Appendix.

**Table 3.2-4. Long-Term Operational Emissions**

SOURCE	Pounds per Day				
	ROG	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>
Vehicles	0.5	8.6	1.0	0.1	0.1
Gas Dryer	0.3	2.4	11.4	<0.1	1.6
Electrical Demand	<0.1	0.4	2.3	0.2	0.1
<b>TOTAL</b>	<b>0.8</b>	<b>11.4</b>	<b>14.7</b>	<b>0.3</b>	<b>1.8</b>
SCAQMD Threshold	55	550	55	150	150

The new facilities would also generate electrical demand for the operation of oxygen separation and ozone generation pumps, compressors and lighting. Electrical demand would result in electrical generation emissions from local powerplants, which are presented in Table 3.2-4. When combined with the gas dryer and vehicle emissions, these total operational emissions do not exceed the SCAQMD threshold. Therefore, these emissions are considered a less than significant impact to regional air quality.

*Item b)* Objectionable odors associated with the proposed project would be limited to traces of ozone contained in the ozone destruction exhaust gas and some earthy, musty odors in the residuals solids buildings. The expected concentrations of ozone would be less than the human odor threshold and no odors from this source are expected to be detected. The washwater

### 3.0 Discussion Of Environmental Issues

residuals buildings will be fully enclosed and given the distance from the buildings to the nearest residences, the lower elevation of the buildings relative to the residences, and the high amount of air turbulence created by traffic on Balboa Boulevard, any odors are anticipated to be adequately dispersed before being detected in the residential area. The buildings that will house the consolidated solids will be constructed to contain odors and all loading of the residuals will occur within the buildings, thereby further reducing the potential for odors.

*Item c)* The removal of the small hill by the proposed project would result in a slight alteration of the local microclimate and a minor change in air movement patterns. However, local wind speeds and direction are dominated in this portion of the San Fernando Valley by regional characteristics and by the mountains directly north and west of the site. Any minor changes in air movements associated with the project are not expected to cause significant changes in the transport of pollutants, nor would they create strong winds in locations that previously did not experience such. Therefore, no significant impact is associated with the minor change in the local micro-climate.

### 3.3 WATER

*Items a,h,i)* The Jensen Plant has a well developed drainage system that collects and channels surface flows during storm events. Water that is not absorbed into the ground is channeled into the Weldon Canyon tributary to Bull Creek and subsequently directed to the Sepulveda Dam in the southern end of the San Fernando Valley.

No substantial water bodies are located on any of the proposed or optional locations of the project improvements. Two 50-million-gallon reservoirs are located on the Jensen Plant property. However, the project will not alter the amount of water held in the reservoir. The proposed improvements would not alter the course or flow of flood waters to Bull Creek. Construction of the project would not result in use of a substantial amount of water that would otherwise be available for the public. The proposed project would not expose people or property to water-related hazards such as flooding or tidal waves.

*Items b,d)* Construction of the proposed improvements would increase the amount of impervious cover within the Jensen Plant by approximately 11 acres (9 acres under Option 2). While the increase in impervious cover would increase the total volume of runoff from the site, the considerable change in slope associated with the project would decrease the velocity of discharge from the site. These two alterations are expected to offset each other such that no significant change in peak discharge is expected. In addition, the volume of water associated with runoff from the 11-acre site (less than 7 acre-feet for the 50-year storm) is insignificant when compared to the 1,850-acre watershed of Bull Creek upstream of the project site. The project site would contribute less than 1 percent of flows to Bull Creek at this point. Surface runoff from the site would be accommodated by drainage systems included in the project design.

### 3.0 Discussion Of Environmental Issues

*Items c)* The proposed chemical pipe corridor to be installed between the Jensen Plant and the LADWP facilities would cross Weldon Canyon Creek as suspended pipelines downstream of the existing access road bridge and upstream of the railroad trestle. The proposed alignment continues eastward with each pipeline crossing the concrete channel of the aqueduct as suspended pipelines also. These sections of the pipelines will be designed to allow flood flows to pass freely below the pipelines. In addition, since they will be double-walled with a leak detection system, the possibility of leakage into the drainage system is considered low and not significant.

Under road access Option A, a new bridge over Weldon Canyon Creek would be required (see Figure 6 in Section 1.6). If this access option is selected during the final design of the proposed project, it could alter the flow of surface water in this tributary to Bull Creek at least temporarily during construction. If any features are eventually proposed within the stream channel, these features would be subject to review by the U.S. Army Corps of Engineers, California Department of Fish and Game, and the Regional Water Quality Control Board.

*Item e)* The controlled shunting of water through proposed plant rejection structures and pipelines into Bull Creek would only occur during emergency situations. The proposed project would not result in any additional water being shunted into Bull Creek than could be shunted by the existing facility. However, it would increase the number of pipelines through which water could be shunted in an emergency situations. Construction of the bridge over Weldon Canyon Creek included as part of Option A could cause impacts to water quality during construction. The net effect will depend upon the actual bridge design and would be subject to regulatory agency review as described in the response to Item c above.

*Items f,g)* The project as proposed, does not include any ground water extraction nor construction at depths below the ground water level; therefore, it would not alter the direction, rate of flow, or quantity of ground water in the area.

### 3.4 PLANT LIFE

A botanical survey was conducted by Sapphos Environmental on January 22, 28, 29 and February 10 and 11, 1994. The on-foot survey covered all slope aspects, soil types, and drainage. Vegetation was delineated on a detailed topographic map (scale 1 inch equal to 80 feet). Coastal sage scrub habitat was delineated during the January 28, 1994 survey and the site was subsequently subject to qualitative surveys as defined in the *Coastal Sage Scrub Survey Guidelines* (CDFG, 1992) in accordance with the Natural Community Conservation Plan (NCCP). Species of plants observed during the survey were recorded or collected for subsequent identification.

The proposed site for the oxidation retrofit program consists primarily of Diegan coastal sage scrub interspersed with stands of native walnut trees. The south slope and southeast corner of the site have been graded and had concrete drains installed across the slope. Both native and non-native vegetation has been planted along the south slope and irrigation risers

### 3.0 Discussion Of Environmental Issues

installed. The southeast section is a series of flat graded pads. The site is situated on a hillside with north, east, and south aspects. Immediately to the west is a very steep slope down to Balboa Boulevard which has been graded, re-contoured and revegetated with some coastal sage scrub species. The eastern side of the site is bordered by the unimproved section of the Weldon Canyon tributary to Bull Creek which is characterized by Fremont cottonwood-willow riparian forest. The proposed location for the washwater residual processing plant was graded during site preparation for the Jensen Plant expansion project and is devoid of vegetation with the exception of non-native ruderal species. The following discussion details the different plant communities noted on the site.

**Diegan Coastal Sage Scrub.** Based on the evaluation guidelines provided in Attachment C. Evaluation Logic Flow Chart of the Southern California Coastal Sage Scrub Conservation Guidelines (CDFG 1993), the Diegan coastal sage scrub at the site was assessed as having a low to intermediate potential value for long-term conservation. Where the Diegan coastal sage scrub transitions to the previously graded areas along the southeastern facing slope, there are open areas with very loose soil and bare ground. During the January 28, 1994 site survey this open area was dominated by California croton (*Croton californicus*) with substantial numbers of emerging filaree (*Erodium cicutarium*) and small short-podded mustard (*Brassica geniculata*). Other species included wishbone bush (*Mirabilis californica* var. *californica*), wild cucumber (*Marah macrocarpus*), and white nightshade (*Solanum douglasii*). The north slope of the proposed grading site is characterized by a dense stand of California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*), with an occasional brittle-bush (*Encelia farinosa*). The bush sunflower is the dominant plant at lower elevations of the hill and along the east facing slopes. Other species which are present at the lower margins of the proposed grading site include California buckwheat, Our Lord's candle (*Yucca whipplei* ssp. *intermedia*), and black mustard (*B. nigra*).

A number of California black walnut (*Juglans californica*) are interspersed with the coastal sage scrub along the midsection of the east-facing slopes on the large hill that is proposed to be graded for the oxidation retrofit program. A single small holly-leaf red berry (*Rhamnus ilicifolia*) is located downslope of the walnut trees. Several additional walnut trees are located above (and to the south of) the concrete storm channel that runs from Balboa Boulevard to the Weldon Canyon Creek tributary to Bull Creek. Other trees that are interspersed with coastal sage scrub include a large laurel sumac (*Malosma laurina*) near Balboa Boulevard and numerous Mexican elderberry (*Sambucus mexicana*) along the north facing slope, south of the concrete channel.

The LADWP graded access road that extends from San Fernando Road south along the eastern margin of the study area is bordered by coastal sage scrub dominated by California sagebrush and California buckwheat. Other species which are located primarily along this road edge include slender tarweed (*Hemizonia ramosissima*), mule fat (*Baccharis salicifolia*), brittlebush, Our Lord's candle and Mexican elderberry. Upslope from the road are several stands of giant rye (*Elymus condensatus*). Native components of the coastal sage scrub vegetation are

### 3.0 Discussion Of Environmental Issues

interspersed with several weedy species including castor bean (*Ricinus communis*), tree tobacco (*Nicotiana glauca*) and black mustard.

**Fremont Cottonwood-Willow Riparian Forest.** This area is characterized by Fremont cottonwood (*Populus fremontii*), tree willow species (*Salix* spp.), interspersed with mule fat and Mexican elderberry. Some non-native species are also present including cocklebur (*Xanthium strumarium*), castor bean, giant reed (*Arundo donax*) and tree tobacco. A non-native weed eradication program was conducted for castor bean, giant reed and tree tobacco during the fall of 1994.

**Disturbed Area.** A portion of the proposed grading area for the oxidation retrofit program contains a series of graded pads and concrete ditches. Most of the soil in this section is bare. A portion of the graded slope has been planted with ornamental species such as toyon (*Heteromeles arbutifolia*) and Aleppo pine (*Pinus halipensis* var. *mondale*).

The proposed location for the washwater residual processing plant is a graded site where vegetation is limited to ruderal species, such as castor bean, Russian thistle (*Salsola australis*) and vinegar weed (*Trichostema lanceolatum*).

Pursuant to Appendix G of the CEQA Guidelines, impacts on plant life are normally found to be significant if a project will have one or more of the following effects:

- Conflict with adopted environmental plans and goals of the community in which the project is located.
- Substantially effect an endangered or threatened plant species or the habitat of that species.
- Substantially diminish habitat for plants.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how the resource fits into a regional context. Substantial impacts would be those that contribute to or result in the permanent loss of an important resource.

**Item a)** The proposed oxidation retrofit program would remove 8.4 acres of coastal sage scrub, including a stand of California walnut trees. The supplemental washwater residuals processing facility would occur on 0.3 acres that were previously graded and contains only weedy vegetation. Up to an additional acre of disturbed habitat might be temporarily disrupted by the construction of the chemical pipe corridor between the Jensen Plant and the LADWP facilities.

Although the coastal sage scrub community is a state-designated sensitive habitat, its value at this location is reduced by its location within the Jensen Plant property and the presence of Balboa Boulevard and residential development to the west, San Fernando Road, a railroad, and I-5 to the north and east, and the existing Jensen Plant facilities and residential development to

### 3.0 Discussion Of Environmental Issues

the south. Therefore removal of this relatively low value coastal sage scrub vegetation is not considered to be significant. Removal of vegetation in the disturbed areas is also not considered a significant impact. In addition, the proposed project would revegetate the cut and fill slope areas with native and drought-tolerant plants.

*Item b)* The California Natural Diversity Data Base (CNDDDB, 1994) was queried for sensitive plant species occurring on the USGS 7.5 Minute Series San Fernando topographic quadrangle. Four sensitive plants were identified as the subject for directed surveys as shown in Table 3.4-1.

**Table 3.4-1. Sensitive Plant Species in Project Vicinity**

Species	Federal Status	State Status	Notes
Nevin's barberry ( <i>Berberis nevinii</i> )	Category 1	Endangered	Closest record is for Van Nuys Blvd. in 1932. Believed to be extirpated.
Davidson's bush mallow ( <i>Malacothamnus davidsonii</i> )	Category 2	None	There are four records between 1931 and 1977. The CNDDDB lists this plant as presumed extant.
Slender-horned spineflower ( <i>Dodecahema leptoceras</i> )	Endangered	Endangered	One record for the San Fernando area. The CNDDDB lists this species as extirpated from Lime Kiln Canyon Wash.
San Fernando Valley spineflower ( <i>Chorizanthe parryi</i> var. <i>fernandina</i> )	Category 1	None	The CNDDDB lists this species as last seen in Chatsworth Park in 1901.

No unique, rare, or endangered plant species were detected on or around the site during detailed botanical field surveys which were conducted for this project.

*Item c)* Re-contoured slopes will be reseeded and revegetated with native and drought-tolerant plant materials. Particular emphasis will be placed on incorporating California black walnut, Mexican elderberry, laurel sumac, and holly-leaf red berry into the landscaping plan. The landscaping plan will use plant materials that will not have an adverse impact on natural areas of coastal sage scrub west of the cut slopes of Balboa Boulevard or the Fremont cottonwood-willow riparian forest in Weldon Canyon Creek.

*Item d)* Lands in the vicinity of the proposed improvements are not designated as important farmland, and the soils are not suitable for agriculture. No crops are grown on the site.

#### 3.5 ANIMAL LIFE

General wildlife surveys were conducted by Sapphos Environmental on January 22, 28, 29 and February 11, 1994. All habitats on and bordering the site were surveyed for wildlife. Directed surveys for the coastal California gnatcatcher were completed by Sweetwater Environmental Biologist, Inc. The three requisite surveys were conducted in accordance with the Scientific Review Panel's survey guidelines. Surveys were conducted on March 15, 22, and 30, 1994.

Evidence of general wildlife use of the area was noted including direct visual observations, vocalizations, and diagnostic sign (such as burrows, scat, dust bowls, footprints, tail drag marks and trails). Auditory recognition was of particular importance in identifying bird species. Active searches for reptiles and amphibians involved walking throughout the site and lifting and overturning rocks and debris and searching for sign including food sources, scats, shed skins and tail drag marks.

**Mammals.** Several mammal species were observed during the course of the surveys including the dusk-footed wood rat (*Neotoma fuscipes*), Audubon's cottontail (*Sylvilagus audubonii*), house mouse (*Mus musculus*) and deer mouse (*Peromyscus maniculatus*). Burrows and scat were observed for the California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*).

**Birds.** Numerous bird species were observed during the January, February and March surveys. Two raptor species were repeatedly observed foraging: red-tailed hawk (*Buteo jamaicensis*) and Cooper's hawk (*Accipiter cooperii*). Other bird species observed in association with the coastal sage scrub habitat include: California quail (*Callipepla californica*), California towhee (*Pipilo crissalis*), California thrasher (*Toxostoma redivivum*), Bewick's wren (*Thyomanes bewickii*), scrub jay (*Aphelocoma coerulescens*) and bushtit (*Psaltriparus minimus*). Other bird species observed in association with the riparian habitat that borders the study area to the east include: ruby-crowned kinglet (*Regulus calendula*) and white-crowned sparrow (*Zonotrichia leucophrys*).

**Amphibians and Reptiles.** Observed herpetofauna was limited to the California newt (*Tarich torosa*), Pacific garden slender salamander (*Batrachoseps pacificus major*), side-blotched lizard (*Uta stansburiana*) and western skink (*Eumeces skiltonianus*). Limited observations of herpetofauna were likely related to the cool temperatures that occurred during the surveys.

Pursuant to Appendix G of the CEQA Guidelines, impacts on animal life are normally found to be significant if a project will have one or more of the following effects:

### 3.0 Discussion Of Environmental Issues

- Conflict with adopted environmental plans and goals of the community in which the project is located.
- Substantially effect an endangered or threatened species of wildlife or the habitat of that species.
- Interfere substantially with the movement of any resident or migratory fish or wildlife species.
- Substantially diminish habitat for fish or wildlife.

*Item a)* Removal of the 8.4 acres of coastal sage scrub habitat will result in habitat loss for some wildlife species. This impact is considered adverse, but not significant due to the limited area that would be lost because of construction of the oxidation retrofit program. In addition, the proposed project would revegetate the cut and fill slope areas with native and drought-tolerant plants that would provide some habitat for wildlife.

*Item b)* The CNDDDB was queried for sensitive wildlife species occurring on the USGS 7.5 Minute Series San Fernando topographic quadrangle which revealed records for three sensitive wildlife species. Table 3.5-1 lists the four sensitive wildlife species that were identified as the subject for directed surveys. Directed surveys for the coastal California gnatcatcher were undertaken by Sweetwater Environmental Biologists, Inc., (1994), due to presence of low to intermediate quality coastal sage scrub onsite. Sweetwater Environmental Biologists, Inc. concluded that no coastal California gnatcatchers were detected during any of the three project surveys. Directed surveys for least Bell's vireo, Santa Ana sucker, and San Diego horned lizard were conducted by Sapphos Environmental. None of these species were observed.

*Item c)* The existing natural area at the proposed oxidation retrofit program site is surrounded by development including the existing Jensen Plant facilities to the south, Balboa Boulevard to the west, the access road to the east and San Fernando Road to the north. The 0.3 acres at the supplemental washwater residual processing facility site is graded and devoid of habitat value. The proposed project would result in the removal of 8.4 acres of low to intermediate quality coastal sage scrub. However, due to the extent of surrounding development, the project is not expected to result in introduction of new animal species or barriers to animal migration or movement.

Table 3.5-1. Sensitive Animal Species in the Project Vicinity

Species	Federal Status	State Status	Notes
Least Bell's vireo ( <i>Vireo bellii pusillus</i> )	Endangered	Endangered	Closest record is for Van Norman Dam in 1978.
Coastal California gnatcatcher ( <i>Polioptila californica californica</i> )	Threatened*	Endangered	Low to intermediate quality coastal sage scrub onsite.
Santa Ana sucker ( <i>Catostomus santaanae</i> )	Category 2	None	Closest record is for the Big Tujunga Creek in 1983.
San Diego horned lizard ( <i>Phrynosoma coronatum blainvillei</i> )	Category 2	None	One record for the San Fernando area.

\* The federal status of the Coastal California gnatcatcher has changed as a result of a recent federal court decision that invalidated the U.S. Fish and Wildlife Service's listing of the species status given the Service's failure to disclose data upon which it rendered its decision.

*Item d)* The proposed project limits grading outside the limits of the floodplain for the Weldon Canyon Creek tributary to Bull Creek. Therefore, there are no anticipated impacts on fish habitat. The proposed project will remove 8.4 acres of low to intermediate quality coastal sage scrub that provides some habitat value for passerine birds. The proposed project would revegetate the cut and fill slope areas with native and drought-tolerant plants, which would restore some habitat to the site.

### 3.6 NOISE

The existing filtration plant and site of the proposed expansion are bounded on the west by Balboa Boulevard and low-density residential development. The northern and eastern portions of the proposed site are bounded by Interstate 5, Southern Pacific Railroad, and San Fernando Road. As such, automobile traffic is the primary noise source in the project vicinity. The residential development west of Balboa Boulevard, off of Timber Ridge Drive is the primary noise sensitive receptor in the project vicinity.

A detailed noise study that was conducted for the proposed project (Veneklasen & Associates, March 1994) included ambient noise measurements taken over a 5-day period (February 10-15) at the intersection of Timber Ridge Drive and Balboa Boulevard. The noise monitoring used the average hourly noise level, Leq, a common measure used to quantify

### 3.0 Discussion Of Environmental Issues

environmental noise. Hourly Leqs can also be combined to quantify the 24-hour noise exposure at a site using an appropriate indice such as the Day-Night Average Level (Ldn) or Community Noise Exposure Level (CNEL). These two indices are essentially equivalent. The noise meter also measured the percentile noise levels, which are those levels exceeded a particular percentage of the time. For instance, the  $L_{90}$  is the level exceeded 90 percent of the time and this particular percentile level has been shown to compare fairly closely with the residual noise level. The residual noise level is that background sound level that remains after all identifiable noise has been eliminated and for the purposes of a conservative analysis is considered the ambient level.

Noise measurements at the intersection indicated that the Leq during the evening and night hours ranged from 55 to 68 dBA, while  $L_{90}$  levels ranged between 50 to 60 dBA. While the Leq noise was dominated by the passing of vehicular traffic on Balboa Boulevard, the ambient noise ( $L_{90}$ ) at the site during these hours came from the Jensen Plant and the distant traffic on Interstate 5. Additional nighttime measurements made in the residential area west of Balboa Boulevard indicated lower ambient noise levels than at the intersection monitoring site which was exposed more directly to Jensen Plant noise and vehicular traffic. This reduction was expected because of the noise shielding that results from the lower elevation of the Jensen Plant and, to a lesser degree, the increased distance.

Short-term noise monitoring conducted by Fugro West, Inc. on January 21, 1994, in the residential area 50 feet from Balboa Boulevard indicated that the current daytime Leq was 64 dBA. The Veneklasen (March 1994) noise monitoring adjacent to Balboa Boulevard (at the curb) indicated that the hourly daytime Leq typically exceeded 65 dBA.

*Items a,b)* The proposed ozonation facility would be the source of short-term construction noise and long-term operational noise. Construction noise will be caused primarily by the use of heavy equipment and truck traffic needed to remove the hill to be graded to form the pad for the facility and transport the excess material from the site. Operational noise from the ozonation facility is associated with the release of high pressure gas, the compression of gas, general machinery noises, and infrequent operation of the emergency generators. Additional sources of noise to the residential area west of Balboa Boulevard are the belt press contained in the washwater residuals building and the relocation of the maintenance facility (proposed project and Option 2) to near the Balboa Boulevard entrance.

**Construction Impacts.** Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers, and other equipment can reach high levels, in the range of 70 to 95 dBA at 50 feet (U.S. EPA, 1971). During construction, actual noise levels will vary substantially depending on the construction schedule and types and number of equipment in operation at any particular time. The large range described above results from the mobile nature and intermittent activity schedule associated with construction equipment use. To assess the potential impact of construction equipment on the nearest residence, located 1,650 feet from the hill proposed for grading, it was assumed under a worst case basis that all of the grading equipment would be operating simultaneously at the same distance. This analysis assumed that two bulldozers (with mufflers and engine enclosures), two loaders, one scraper, and six dump

### 3.0 Discussion Of Environmental Issues

trucks would be operating at the grading site and assumed that each would be operating near full power (average maximum sound level). Based on a typical atmospheric attenuation rate of 6 dB per doubling of distance, the combined noise level of this equipment alone would result in an hourly daytime Leq of 63 dBA at the nearest residence.

Since daytime noise levels caused by vehicle travel on Balboa Boulevard already exceed this Leq, the worst case construction noise when added to traffic noise would cause only a 1-2 dBA increase in daytime noise levels at the nearest residence. The noise exposure at this residence would not exceed an Ldn of 65 dBA (the typical standard for noise compatibility with residential uses). While the grading equipment would be audible in the residential area during lulls in traffic along Balboa Boulevard, the overall increase in daytime noise levels caused by the grading equipment would not be sufficient to cause an exceedance of land use compatibility levels for residential uses. In addition, this analysis did not consider the shielding effect of the hillside and the lower elevation of the Jensen Plant. During construction, most of the loading and truck movements will occur at the base of the hill, with truck ingress and egress occurring via the San Fernando Road entrance, which is located behind the ridge with respect to the residential area. The barrier effect associated with this ridge would be expected to further reduce construction noise levels below those estimated.

Another source of construction noise is the movement of heavy trucks to and from the site to transport excess material. The proposed project would route these trips along San Fernando Road and the Interstate 5 freeway and construction traffic along Balboa Boulevard adjacent to the residential area would not be allowed under the construction contract. Since the truck traffic would not occur adjacent to any sensitive noise receptors, no construction noise impacts associated with truck trips would occur.

The washwater residuals building and the new maintenance facility (proposed project and Option 2) would be constructed adjacent to Balboa Boulevard, approximately 270 feet from the nearest residence. While minimal grading would be necessary at this location, the use of hammers, saws, forklifts, trucks, and similar equipment would cause noise levels in the 70 - 85 dBA range at the site, which would cause intermittent sound levels of 55 - 70 dBA at the nearest residence. While these sound levels would occasionally be audible, Balboa Boulevard traffic would largely mask these sound levels during the daytime hours and no significant construction noise impact is anticipated.

**Operational Impacts.** The Veneklasen report (March 1994) assessed the operational noise levels generated by two different types of ozonation facilities, a cryogenic system and a vacuum swing absorption (VSA) system. The effect of both of these systems was estimated based on specific equipment sound level emissions at different frequencies, the effect of local topographical barriers, and assuming three different levels of noise mitigation. The noise levels were estimated using the NOMAS (Noise from Multiple Acoustic Sources) computer modeling program. The primary noise barrier considered in the noise modeling effort results from Balboa Boulevard being higher in elevation than the noise sources located within the plant, thereby placing the nearby residences within a noise shielded area. The significance of impact was based

### 3.0 Discussion Of Environmental Issues

on the City of Los Angeles Noise Ordinance (Municipal Code No. 156,363), which essentially states that the allowable noise level produced by the plant during the nighttime should not exceed by more than 5 dB the ambient noise level. The lowest measured hourly ambient ( $L_{90}$ ) noise level at the residential area during the night was 44 dBA, as compared to the lowest measured ambient at the 5-day monitoring site of 48.5 dBA. Therefore, an  $L_{90}$  of 49 dBA was used as the threshold level.

Table 3.6-1 indicates the expected noise levels in the residential areas (Receptors 3 and 4) for the various levels of mitigation and with and without operation of the emergency power generators. The low mitigation condition has all noise sources located outdoors, however, some of the equipment would have noise mitigation in the form of exhaust vent silencers and inlet air silencers, and the blowers at the ozone generation building would have a noise barrier. The moderate condition would add noise barrier walls sufficient to break the line-of-sight between the residences and the main air compressors, refrigerant dryers, adsorbent vessels, and product gas blowers. Such barriers would typically be constructed of available building masonry (brick, concrete block, etc.). The heavy mitigation option would enclose all major noise sources, although exhaust vents and inlet air openings must penetrate the building enclosures.

**Table 3.6-1. Predicted Noise Levels, dBA**

System Type	Noise Mitigation Level	Receptor 3 Timber Ridge Dr at Balboa Blvd		Receptor 4 Mission Tierra at Timber Ridge	
		Without Generators	With Generators	Without Generators	With Generators
		Cryogenic	Low	50	51
	Moderate	35	45	32	42
	Heavy	30	45	26	42
VSA (Normal)	Low	46	48	43	45
	Moderate	34	45	31	42
	Heavy	30	45	26	42
VSA (Peak)	Low	46	48	43	45
	Moderate	35	45	32	42

Source: Veneklasen, March 1994

The expected noise levels in the residential area are below the ordinance allowed maximum of 49 dBA, except for the Cryogenic system with the low level of mitigation. The lowest measured ambient nighttime noise level was actually 49 dBA at this specific location and, therefore, the ordinance would allow up to 54 dBA. Nonetheless, the Cryogenic system is considered to potentially cause a significant impact at the low mitigation option at this location. The noise sources that control noise levels at this location are the product gas blowers, the main air compressor, and the emergency generators. Should the Cryogenic system be implemented,

### 3.0 Discussion Of Environmental Issues

the predicted exceedances could be reduced below 49 dBA by a moderate level of mitigation to the gas blowers.

Use of the VSA system at both peak and normal operating modes will require that a low level of mitigation be incorporated into the final design of the ozonation facility, namely that filter silencers will be installed on the main air compressors, local noise barriers will be installed next to the ozone generation plant blowers, and the emergency generator building will have engine exhaust silencers, acoustic louvers at air inlet and exhaust openings, sound-rated roll-up doors, and sound-rated personnel doors. If the Cryogenic system is used, an additional moderate level of noise mitigation, namely local acoustical barriers, will be installed adjacent to the product gas blowers.

The noise calculations assumed that the four emergency generators would be in operation during the nighttime, which is a worst case scenario. However, during normal operations, the generators would not be in use except when being tested during daytime hours. The moderate level of mitigation to the gas blowers for the Cryogenic system would provide for compliance with the 49 dBA threshold even with the emergency generators in operation during the night.

Under Option 2, the oxygen separation plant and ozone generation building would be located at a pad elevation 40 feet higher than under the proposed project. This difference in elevation would alter the noise barrier effectiveness of Balboa Boulevard, resulting in sound levels that are 1 - 3 dB higher from these facilities than those contained in Table 3.6-1. Similar to the proposed project, the higher sound levels created by this option would also require a moderate level of mitigation to the gas blowers for the Cryogenic system to meet the 49 dBA threshold. The VSA system at peak operation will also require a moderate level of mitigation to the gas blowers under this option.

Besides the ozonation facilities and the belt press, the only other new stationary source of noise associated with the proposed project is the maintenance facility (service center and warehouse). This facility is currently proposed to be located about 270 feet from the nearest residences and the use of pneumatic tools outside the service center could cause infrequent sound levels of 66 - 75 dBA at the residences. This could create a significant impact under the proposed project and Option 2. To mitigate this effect, servicing will only be allowed inside the building or on the east side of the building. In addition, the project will incorporate design features such as wing walls and/or noise barriers to shield the adjacent residences from any loud noises associated with pneumatic or other loud tools. The service center building will be designed such that all exterior roll-up doors will face the interior of the plant, personnel doors facing Balboa Boulevard will be sound-rated, and walls facing the Balboa Boulevard residences will be designed to meet a minimum acoustical reduction of 21 dBA. Under Option 1, this facility would remain in the same location and would not result in any change in the existing noise environment.

### 3.0 Discussion Of Environmental Issues

Transportation noise associated with the proposed project includes some additional vehicle trips (26 trips per day) and an increase in the monthly deliveries of chemicals by truck and rail to the project site. Traffic counts for Balboa Boulevard in 1991 indicate that it carries over 33,500 vehicle trips per day (Brenda Chambers, City of Los Angeles Transportation Department, personal communication, February 1994) and the additional truck and vehicle trips caused by the project during long-term operations would be negligible compared to this existing level.

Chemical deliveries via rail car currently occur at the site, and an onsite rubber-tired tractor is used to move the rail cars along the spur lines to their appropriate loading locations. This creates noise from the movement of the rail cars along the tracks and occasional banging of rail cars as they are connected. At peak chemical need (see Section 3.10), additional rail cars will be delivered to the site via existing freight trains. Since no additional trains will be required to deliver the supplemental chemicals to the site, no significant noise impact would occur due to train movements. While an increase in the number of rail car activity at the site is expected during certain water quality periods, the noise associated with this activity will be adequately attenuated by the barrier effect of buildings between the spur lines and offsite residences, the elevational barrier caused by Balboa Boulevard, and the distance to the spur lines from the residences (2000 feet or more). Therefore, transportation noise associated with the long-term operation of the proposed project is not considered significant.

#### 3.7 LIGHT AND GLARE

*Item a)* The northernmost portion of the area proposed for expansion is a small hill partially covered with vegetation and adjacent to the Jensen Plant. Light and glare is not presently generated at this location though street lights are present along Balboa Boulevard. The remainder of the property proposed for improvement is located within the existing Jensen Plant compound. The compound is illuminated at night; however, due to its location generally below Balboa Boulevard, it is not highly visible from most public viewing points. The project site lies at the northern end of the San Fernando Valley, which is a source of considerable nighttime light and glare.

The existing filtration plant has historically been a source of artificial lighting. Construction of the project improvements would expand these facilities and there would be a corresponding increase in exterior lighting at the northern end of the Jensen Plant.

Additional light emitted from the proposed project would be noticeable to residents living on the west side of Balboa Boulevard, and to traffic on Balboa Boulevard, San Fernando Road and Interstate 5; however, it would be an expansion of an existing light source emitted from a lower elevation. In addition, lighting sources from the proposed project would be shielded and projected towards the ground, thereby decreasing the quantity of light radiated onto adjacent roadways and into the nighttime sky. Impacts from light generated by the proposed project would therefore be less than significant.

### 3.0 Discussion Of Environmental Issues

The surface area of glass may minimally increase due to the project; however, glare created from reflection of the sun on the proposed facilities during daylight hours is not anticipated to increase significantly. Low-reflectivity tinted glass similar to that used as described above for the existing facility will serve to maintain daytime glare at unobtrusive levels. Impacts from glare would therefore be less than significant.

If the service center complex is constructed near the Balboa Boulevard entrance (proposed project and Option 2), lighting in the southwestern vicinity of the plant would increase as there are presently no facilities, other than a guard shack, in this area. However, this increase would be limited to security lighting and would not be significant. Only during emergency operations (i.e., earthquake) would the service center be operated at night. Increased glare from this location would be minimal, eclipsed by the existing street lighting, and further reduced by landscaping mitigation requirements listed in Section 3.18.

Although project-generated light and glare impacts would be less than significant, low glare light fixtures will be incorporated into the project design to further reduce project-generated nighttime glare.

#### 3.8 LAND USE

*Item -a)* The primary area proposed for expansion is presently an undeveloped hill adjacent to the Jensen Plant. A portion of this open space area was previously altered to graded cut slopes during the construction of Balboa Boulevard and the Jensen Plant. The remainder of the property proposed for improvement is within the existing Jensen Plant compound. Zoning of the project site and the Jensen Plant is A1-1-0 and A1-1. The A1 indicates an agricultural zoning district with a minimum lot size of 2.5 acres, while the additional numbers refer to the height district. The height district for the property would allow a floor to area ratio of 1.5. The proposed project is a permitted use under this zoning and would meet the height district restrictions.

Land use in the project vicinity is mixed and includes residential, transportation, and utility uses. North and easterly of the project site are transportation uses dominated by the Golden State Freeway (Interstate 5), San Fernando Road, and the Southern Pacific Railroad. The LADWP power converter station and Van Norman water reservoirs complex lies to the southeast (see Figure 8C in Section 3.18), while southwest lies single-family residences. Directly west of the hill proposed for removal is open space land, a portion of which is a tall cut-slope made when Balboa Boulevard was constructed.

The proposed project represents an expansion of an existing public use that complies with existing zoning. Construction of the oxidation retrofit facilities and washwater residuals buildings would occur on vacant property immediately adjacent to, and within, the Jensen Plant. This property is presently owned by Metropolitan, which has planned to use the property to expand the existing facility since its initial construction. Development of the project, therefore, would not result in an alteration of the present or planned land use of the subject site.

### 3.0 Discussion Of Environmental Issues

The proposed project would include expansion of the plant into open space area nearer to transportation land uses and away from residential uses. The location of the proposed project at an elevation lower than Balboa Boulevard also decreases the potential for long-term land use conflicts with the residential uses located to the west. Construction of the project could cause short-term noise and dust emissions that may affect residential uses, as discussed in Sections 3.2 and 3.6 above. Because these construction-related emissions are short-term and would be controlled through mitigation measures incorporated into the project, no significant land use impacts are expected.

The washwater residuals building and the service center complex (proposed project and Option 2) would be relocated across the street from residential uses. As described in Section 3.6, the service center complex would cause short-term nuisance noises when vehicles are being serviced, however, this impact will be mitigated and no significant residual land use conflicts are anticipated. The washwater residuals building would create minimal noise or odor impacts and no significant land use impacts are expected from this proposed building location.

The chemical pipe corridor connecting the Jensen Plant with LADWP facilities would be through disturbed open space areas that are owned by Metropolitan and the City. The proposed chemical pipe corridor is consistent with the existing industrial land uses. No land use effects are anticipated due to its construction.

### 3.9 NATURAL RESOURCES

*Item a)* No natural resources are presently used at any of the onsite areas proposed for the project. The project site does not contain any commercial oil or mineral resources, such as sand and gravel, nor is it usable for agriculture.

While the consumption of natural resources would slightly increase during construction of the proposed improvements, long-term operation would not result in a significant increase in the rate of use of any natural resources. It is expected that the earth materials removed during construction will be used as cover soil at nearby landfills or as fill at other locations, thereby conserving the amount of such material otherwise necessary for landfill operations.

### 3.10 RISK OF UPSET

*Item a)* The portions of the property proposed for expansion are mostly undeveloped. As a result, no potential risk of upset presently exists at these locations. The Jensen Filtration Plant presently stores and utilizes various chemicals for the treatment of water to assure its potability to the consumer. The facility operates under an Emergency Response Plan (Metropolitan, 1993b) that provides direction and procedures in the event of an accident or upset conditions. In the past, no accidental release of chemicals has gone off the plant site.

### 3.0 Discussion Of Environmental Issues

No hazardous or explosive substances would be used during construction of the proposed project. However, the proposed project and Option 2 would require the removal of one 12,000-gallon double-wall tank which encloses two 6,000-gallon tanks, one for gasoline, one for diesel. This tank is located below the service center complex and would be relocated to the new site proposed under these options. Underground storage of fuel is typical throughout urban areas and storage within upgraded double-walled tanks meets all existing regulations.

Standard operation of oxygen and ozone generation, along with chemical storage and feed equipment would involve risks associated with the accidental release of chemicals stored onsite. Risk of upset would also exist in the treatment process itself, due to possible over- or under-application of these chemicals. In general, the variety of chemicals used within this process would not pose a significant threat to public health. Onsite storage facilities would be designed to contain these substances in the event of release through the use of containment berms or other measures. The Hazardous Materials Contingency Plan (Metropolitan, 1993a), Emergency Response Plan (Metropolitan, April 1993b), and the Risk Management Prevention Plan for the Jensen Plant (Metropolitan, 1993c) establish procedures in the event of an accident or upset conditions at the Jensen Plant. Currently written procedures exist for sodium hydroxide and chlorine, and procedures will be developed for liquid/ gaseous oxygen, ozone, sulfuric acid, and hydrogen peroxide as part of the Operations and Maintenance Manual prior to startup of the ozonation process. The Emergency Response Plan will also be updated to include specific personnel, procedures and onsite supplies to remediate spills of sulfuric acid, hydrogen peroxide and liquid/gaseous oxygen and ozone gas releases.

Plant personnel are trained and equipped to safely contain and clean-up an accidental release. The City of Los Angeles Fire Department is also equipped to respond to emergencies involving these chemicals, with its Hazardous Materials Team (James, personal communication, 1994). The chemicals to be used in the proposed project improvements, their storage facilities, and their individual characteristics are discussed below.

**Ozone.** Ozone may cause skin, eye and mucous membrane irritation if improperly handled. An accidental release of ozone gas would therefore create potential impacts to human health. The ozone used in the treatment process would not be stored onsite. It would be generated and immediately used at the proposed plant using oxygen-fed ozone generators, thereby eliminating storage risks. Ozone generators for the treatment facility would be housed in a single, centralized building and would generate approximately 12,500 pounds of ozone per day. The amount of ozone that would be used at the plant could pose a significant health threat in the event of a leak. However, if a leak should occur at the site, ozone monitoring equipment would automatically shutdown the entire ozone system. Due to these design safety features, the use of ozone at the site is not considered a significant impact.

Facilities to produce oxygen feed gas suitable for production of ozone are also proposed to be constructed on the Jensen Plant site. In addition to onsite generation of feed gas, liquid oxygen would be stored onsite and may serve as a backup supply

### 3.0 Discussion Of Environmental Issues

and/or may be used to peak the system's ozone production during high demand conditions. The liquid oxygen storage tank can also accept bulk deliveries of oxygen from truck or rail car. The project is expected to use approximately 100 tons of oxygen per day. The primary hazard associated with liquid oxygen is its very cold temperature, which can cause instant freezing of exposed skin. Neither liquid or gaseous oxygen is considered a hazard to offsite locations.

**Sodium Hydroxide (Caustic Soda).** Sodium hydroxide will be used to adjust the water pH to avoid the formation of ozone byproducts, such as bromate. Sodium hydroxide is currently in use at the Jensen Plant and is delivered via about nine rail cars per month. (See Figure 8C in Section 3.18 for typical rail cars and storage tanks.) After the ozone generation facility is installed, the application point of sodium hydroxide will change; however, under long-term average conditions, the overall use of sodium hydroxide at the plant will remain the same. Delivery of sodium hydroxide would be as a 50 percent solution and would be diluted to a 25 percent solution in the storage tanks. Storage on site is anticipated to occur in eight tanks (approximately 25-foot-diameter by 28-foot-high), surrounded by a containment wall large enough to hold the volume of a single tank in the event of a release. As an oxidizer, sodium hydroxide is considered to be a skin, eye, and mucous membrane irritant (NIOSH/OSHA, 1980). However, when handled by trained personnel, health risks associated with sodium hydroxide are not significant. Due to the design of the storage facility, the risk of upset associated with the storage and use of sodium hydroxide would be less than significant.

**Sulfuric Acid.** Sulfuric acid will be used with the caustic soda to adjust the water pH to avoid the formation of ozone byproducts, such as bromate. It is estimated that nine rail cars per month, with a capacity of 12,700 gallons per car, will be required for the ozonation process. Three to five tanks will be built onsite to store the sulfuric acid. The tanks will be approximately 25-feet in diameter and 26-feet in height. All tanks will be surrounded by a cement berm large enough to contain the volume of the largest tank in case of a release. Sulfuric acid is not combustible, but it is highly reactive. If inhaled, it can cause eye, nose, and throat irritation (NIOSH/OSHA, 1980). However, when handled by trained personnel, health risks associated with sulfuric acid are not significant. Due to the design of the storage facility, the risk of upset associated with the storage and use of sulfuric acid would be less than significant.

The Jensen Plant presently receives rail car deliveries of alum, caustic soda, and chlorine. Most of the time, no additional chemical deliveries beyond the existing nine rail cars per month of caustic soda will be required for the proposed project. However, under certain water quality circumstances, additional chemical deliveries may be required. Such conditions can result from periods of extended drought combined with high bromide levels in State Water Project (SWP) deliveries. Specifically, if the bromide level in the water entering the Jensen plant exceeds 0.3 milligrams per liter (mg/l) then caustic soda and acid usage could increase. Such conditions would require

### 3.0 Discussion Of Environmental Issues

additional monthly rail car deliveries of caustic soda (up to 105) and sulfuric acid (up to 65). Conditions requiring supplemental deliveries of caustic soda are infrequent, but when these conditions do occur, they may continue for several months. The additional 2,000 feet of spur track included as part of the proposed project would be sufficient to accommodate the upper limit of deliveries. The storage facilities proposed for the project would be sufficient to accommodate the supplemental deliveries.

**Hydrogen Peroxide.** Hydrogen peroxide is not combustible, but it is a powerful oxidizer. It also would be used to increase the oxidizing effectiveness of ozone. This chemical is expected to be stored in two tanks, each approximately 10-feet in diameter and 10-feet tall. If inhaled, hydrogen peroxide may irritate the eyes, nose and throat (NIOSH/OSHA, 1980). However, when handled by trained personnel, health risks associated with hydrogen peroxide are not significant. Due to the design of the storage facility, the risk of upset associated with the storage and use of hydrogen peroxide is considered less than significant.

In addition to storage precautions, application of these chemicals in the treatment process would be continuously supervised and controlled by computerized and manual backup monitoring systems. All process equipment would have appropriate interlocks and alarms to minimize the risk of chemical over- or under-application.

These control systems and the storage facilities utilized at the plant decrease the risk of upset associated with the use of chemicals within the filtration process. The risk of upset associated with the proposed project is considered less than significant.

The oxygen pipeline would be buried for most of its length and even if the pipeline were accidentally ruptured, the oxygen does not constitute a significant hazard. The risk of upset associated with this pipeline is considered less than significant.

*Item b)* An emergency response plan for the facility is currently in place. It has not, and is not expected to interfere with any other plan.

#### 3.11 POPULATION

*Item a)* The proposed project improvements would modify and upgrade the current water treatment processes at the Jensen Plant to meet recent amendments to federal drinking water quality standards. The proposed project will not increase or decrease the amount of water that Metropolitan is able to provide its customers, and it will result in the addition of only eleven permanent jobs. Therefore, the proposed project improvements will have no significant impacts on population.

### 3.12 HOUSING

*Item a)* The project sites consist of undeveloped property within the Jensen Plant boundaries. No housing is located in these areas, nor is any planned for this location.

The proposed project improvements would modify and upgrade the current water treatment processes at the Jensen Plant to meet recent amendments to federal drinking water quality standards. The proposed project will not increase or decrease the amount of water that Metropolitan is able to provide its customers, and it will result in the addition of only eleven permanent jobs. Therefore, the proposed project improvements will have no significant impacts on housing.

### 3.13 TRANSPORTATION/CIRCULATION

The existing Jensen Plant currently has two entrances: one from San Fernando Road on the north, and one from Balboa Boulevard on the west. Balboa and Sepulveda Boulevards, and San Fernando Road are major collectors linking the project site with nearby Interstate 5 and State Route 118. Industrial-related truck traffic dominates San Fernando Road in the vicinity of the plant. Balboa Boulevard is bridged over San Fernando Road just north of the project site, but a short linkage route, Balboa Road, provides access between the two arterials. Balboa Road forms a "T"-intersection with Balboa Boulevard that is free-flow for north- and southbound Balboa Boulevard and eastbound right-turn traffic coming from Balboa Road. Left-turn traffic onto northbound Balboa Boulevard is controlled by a stop sign. The "T"-intersection of Balboa Road and San Fernando Road is fully signalized with a traffic light and separate left-turn phasing for north/westbound San Fernando Road turning onto Balboa Road.

The most recent traffic counts at the Balboa Boulevard intersection with Sesnon Boulevard in 1991 indicated average daily traffic volumes over 33,500 vehicles per day (17,056 northbound and 16,454 southbound; Brenda Chambers, City of Los Angeles, Department of Transportation, February 1994). Morning peak-hour volumes were 1,981 vehicles southbound and 7,789 vehicles northbound, while evening peak hour volumes were 1,000 vehicles southbound and 2,271 vehicles northbound. The most recent traffic counts for San Fernando Road at Balboa Road were in 1990 and indicated 3,245 vehicles on the west leg and 15,514 on the east leg.

The January 17, 1994, Northridge earthquake's damage to Interstate 5 and State Route 14 resulted in the temporary diversion of I-5 traffic onto San Fernando Road, past the Jensen Plant. This detour resulted in a much heavier flow of all types of traffic (light duty to heavy duty vehicles) running past the plant. The I-5 detour had been moved to the north onto the Old Road, north of the intersection of San Fernando Road and Sierra Highway, while the SR-14 detour uses the former truck ramps that connect with the I-5 to the south. However, southbound vehicle traffic from the Newhall area that formerly accessed SR-14 at the Sierra Highway-San Fernando Road intersection cannot currently enter the freeway at this junction. This traffic is routed onto Sierra Highway southbound to San Fernando Road, past the project

### 3.0 Discussion Of Environmental Issues

site, and then accesses the I-5 freeway at Roxford Street. The I-5 freeway recently (May 17) reopened ahead of schedule and Caltrans indicates that reopening of the SR-14 connector should occur soon (July 1994).

*Items a,c,d*) Construction vehicle and worker access to the site would be restricted to the San Fernando Road entrance, thereby eliminating any potential significant effects to Balboa Boulevard. Access to the site by heavy-duty trucks would be via Interstate 5 and San Fernando Road, with excess fill material from the proposed project being transported north on San Fernando Road. Prior to the earthquake, San Fernando Road experienced relatively light volumes for a 4-lane arterial because this route was more efficiently served by Interstate-5, which essentially replaced San Fernando Road as the primary route north out of the San Fernando Valley. Based on the 1990 traffic counts and assuming a 2.5% annual traffic growth, the level of service (LOS) for San Fernando Road would be estimated as LOS A based on an approximate design capacity for a 4-lane arterial segment at LOS A of 16,100 - 23,900 ADT. However, additional traffic from the Newhall area has been routed along San Fernando Road, resulting in occasional morning peak hour congestion. Since the I-5 completion will remove a portion of the City of Santa Clarita traffic that currently uses the San Fernando Road detour from Newhall, this occasional morning congestion along this route should be reduced prior to the start of project construction. Current timing for the project indicates that it would begin in the first quarter of 1995, after completion of repairs to the SR-14 connector and therefore no conflict with the current detour is expected. To reduce the potential for construction impacts, the following mitigations have been incorporated into the project:

- Metropolitan will work with the City of Los Angeles Transportation Department to develop a construction safety plan to be implemented during the material hauling phase. This plan will include appropriate measures as recommended in Caltrans' *Manual of Traffic Control* (1990). Metropolitan will require the construction contractor to meet appropriate safety measures through the plans and specifications of the contract.
- Sweeping of San Fernando Road in the vicinity of the project site will be conducted to remove any spillage from transport vehicles in compliance with SCAQMD Rule 403 (see Section 3.2).

Additional employee vehicle trips (22 trips per day) are associated with the long-term operation of the proposed project, along with an increase in the monthly deliveries of chemicals by truck to the project site. The additional truck and vehicle trips caused by the project during long-term operations would be negligible compared to the existing traffic levels on Balboa Boulevard and San Fernando Road and no significant changes to local roadway operations are expected due to the project.

### 3.0 Discussion Of Environmental Issues

*Item b)* Existing parking facilities at the Jensen Plant are adequate to accommodate the increased number of employees expected to be generated by the proposed project. No effect on local parking conditions are anticipated due to the project.

*Item e)* The project site is also served by a spur track from the mainline Southern Pacific Rail Road tracks that parallel San Fernando Road. The recent earthquake has resulted in a doubling of the number of Metrolink trains that use this mainline track. It is unknown how long mass transit traffic induced by the earthquake will continue to support this increase in Metrolink trains once the freeways are reopened fully.

Most of the time, no additional rail car deliveries will be needed at the site to support the proposed project. However, under certain water quality conditions, the project could increase the number of rail cars (up to 170 per month) delivered to the Jensen Plant. Rail car deliveries would not exceed one daytime delivery per day and the additional cars would simply be added to the existing trains that make deliveries to the Jensen Plant. An additional 2,000 feet of spur line would be constructed by the proposed project at the tank farm to accommodate the upper limit of deliveries. Therefore no substantial alterations to rail traffic are anticipated. The project would not be served by water or air traffic and so would not alter these transportation modes.

*Item f)* San Fernando Road is an approximate 70-foot wide 4-lane arterial with limited paved shoulder width where the proposed access road would intersect. No parking is allowed along this road due to its limited width. The proposed access road for the ozonation facilities would intersect San Fernando Road about 160 feet south of its signalized intersection with the Balboa Boulevard connecting road and immediately south of the Balboa Boulevard overcrossing. This limited distance between the intersections and the partial shielding of driver sight lines by the overcrossing creates a potential traffic safety hazard. The federal standard requires 250 feet between intersections and 650 between intersections and the nearest visual hazards for a 45 mph road such as San Fernando Road. In addition, the minimum stopping sight distance for wet pavement given the 5% downgrade for southbound traffic would be about 345 feet. Since the access road would join at an oblique angle to San Fernando Road rather than perpendicularly, right-turning heavy-duty semi-trailer trucks leaving the access road would require both southbound lanes to complete their turns, and could occasionally enter into the inner northbound lane.

The potential safety hazard caused by the proposed access road to the ozonation facilities will be resolved during coordination with the City of Los Angeles Department of Transportation. A variety of measures will be evaluated to reduce any safety hazards including:

- extension of the existing acceleration lane;
- safety/warning signage;
- reconfiguration of the access route to accommodate an increased turning radius for exiting trucks;
- limitations on traffic directions (i.e., right-turn only exit); and

- structural traffic control devices.

No traffic safety hazards are associated with the Option A or B designs.

#### 3.14 PUBLIC SERVICES

*Items a-f)* The project improvements are proposed for undeveloped property within the boundaries of an existing water filtration plant. Public services (fire, police, schools, wastewater treatment, etc.) are not presently necessary for these areas, but are available in the project vicinity. The proposed project would not require additional public services, nor would it provide an increase in service to Metropolitan customers. Demand on fire and police services would remain unaltered by the plant expansion, nor would additional wastewater treatment facilities be necessary. The small increase in employees (and subsequently families) would have a minimal effect on local schools. The project would, however, improve water service by ensuring compliance with new water quality regulations. This would provide a beneficial impact to Metropolitan customers.

#### 3.15 ENERGY

*Item a)* The project improvements are proposed for undeveloped areas within the boundaries of an existing water filtration plant. No energy is presently used in these areas. However, electrical and natural gas services (gas mains and high voltage power lines) are presently available within the adjacent filtration plant and these lines are sufficiently sized to accommodate the proposed project.

During construction of the proposed facilities, oil and gas resources would be used for the operation of construction equipment. Relative to the fuel and energy consumption requirements of the Granada Hills area in particular and the greater Los Angeles Basin in general, the construction of the proposed facilities would consume an insignificant amount of fuel and energy.

Current electrical demand of the plant averages 2,000 kilowatts and would be doubled to 4,000 kilowatts due to the proposed project. In addition, the project would consume on average about 4 to 6 million Btu per hour for the gas dryers. Natural gas would be provided by the Gas Company. While these are substantial amounts of energy, the local purveyors (Peck, 1994, personal communication and De La Rosa, 1994, personal communication) have indicated that they can meet the demand required by the proposed project and no significant effect on local or regional supplies is anticipated.

*Item b)* Electricity would be used to operate the proposed ozonation facilities, which would require an estimated 2,000 kilowatts (48,000 kwh/day). The electricity would be produced by the LADWP and sold to Metropolitan. Based on coordination with LADWP (De La Rosa, 1994, personal communication), it has been determined that there will be sufficient capacity to

accommodate a dual 33 kV line service to the Jensen Plant from Balboa Boulevard prior to project construction. Therefore, energy consumption at the project site would not require the development of any new sources of energy.

Natural gas would be consumed at a rate of about 4 to 6 million Btu per hour by the proposed project. The Southern California Gas Company has indicated that the existing gas line to the Jensen Plant has adequate capacity for the proposed demand and that no additional facilities would be needed (Peck, May 1994, telephone communication).

#### 3.16 UTILITIES AND SERVICE SYSTEMS

*Item a)* Power and gas are not presently provided to the undeveloped portions of the project site, but are available at the Jensen Plant. As discussed above, the proposed improvements would not result in a need for new utilities outside of the Jensen Plant, nor would they substantially alter existing utilities.

A utility corridor located parallel to the west bank of Weldon Canyon Creek would be crossed by the contactors overflow pipeline and the chemical pipe corridor. This existing utility corridor contains a large natural gas main and two crude oil pipelines. Metropolitan will coordinate the construction of the chemical pipe corridor with the parties having responsibility for the existing facilities in the utility corridor. The chemical pipelines would either pass above the existing utilities as double-walled pipes, with a leak detection system in the annular space between the pipe walls, or underneath the existing utilities in a concrete box trench that would contain any potential leakage from a single-walled pipeline. Proper construction techniques will be used to assure that no disruption of service would occur to the existing utilities and no significant effect on these systems are anticipated.

*Item b)* The project would not require additional communications facilities beyond those currently provided within the Jensen Plant.

*Items c,d)* Water is provided within Jensen Plant from its own treatment facility and sanitary sewer service is provided by connection to the City of Los Angeles sewer system. The number of additional employees and construction and operation of the proposed facilities would not create a substantial demand on either service. The proposed washwater residuals processing facility would reduce the demand on City sewer service.

*Item e)* As discussed in Section 3.3, the project will provide its own drainage facilities within the Jensen Plant and no increases in offsite stormwater flows are anticipated. Therefore, the project would not have a significant effect on existing drainage systems.

*Item f)* The proposed ozonation facility would have a negligible effect on solid waste disposal. The proposed residuals processing facility would generate about four truck loads of inert materials for disposal to local landfills, a portion of which may be usable in place of daily

cover material used at the landfill. The project alone is not expected to have a significant effect on solid waste disposal facilities.

### 3.17 HUMAN HEALTH

*Items a,b)* The project improvements are proposed for undeveloped property within the boundaries of an existing water filtration plant. These areas currently present no human health risks.

Construction equipment would produce air emissions that could aggravate health problems associated with exposure to unhealthy air quality that commonly occurs in the air basin. Mitigation measures and revised project scheduling have been incorporated into the project to reduce air emissions during construction to acceptable levels (See Section 3.2). Therefore, no significant health hazard is expected to be caused by project construction.

Operation of the project improvements would involve health hazards inherent to the filtration plant's operations. These hazards are associated with the potential release of chemicals including ozone, sulfuric acid, sodium hydroxide and hydrogen peroxide used in the filtration process. As discussed in Section 3.10 above, water filtration facilities in general do not pose a high risk of hazardous material upset. However, if released in large quantities, these chemicals would have a potentially significant impact on human health through the risk of inhalation. Plant personnel are trained and equipped to handle releases safely in accordance with the Emergency Response Manual and Risk Management Prevention Plan (Metropolitan, 1993). These precautionary measures would therefore alleviate impacts to human health associated with the operations of the project to a less than significant level.

In addition, the use of ozone as a chemical disinfectant will allow Metropolitan to reduce chlorine use at the Jensen Plant by 50 percent, thereby reducing the potential for forming chlorinated disinfection byproducts. The by-product reduction and the subsequent improvement of water quality from the ozone pretreatment would result in a long-term beneficial impact to human health.

The chemical pipe corridor will use double-walled pipe where exposed above ground and be buried for the remainder of its length. A leak detection system will be contained in the annular space of the double-walled pipelines. If single-walled pipe is chosen for the buried portions of the pipeline, it will be contained in a concrete trench with a removable cover. The trench will be designed to drain any spilled chemicals to specified locations where they may be detected by the leak detection system contained in the trench and recovered. The proposed methods of leak detection and spill containment will reduce the potential for any chemical spills entering the ground water or contaminating soils and minimize any potential risk to human health.

**3.18 AESTHETICS**

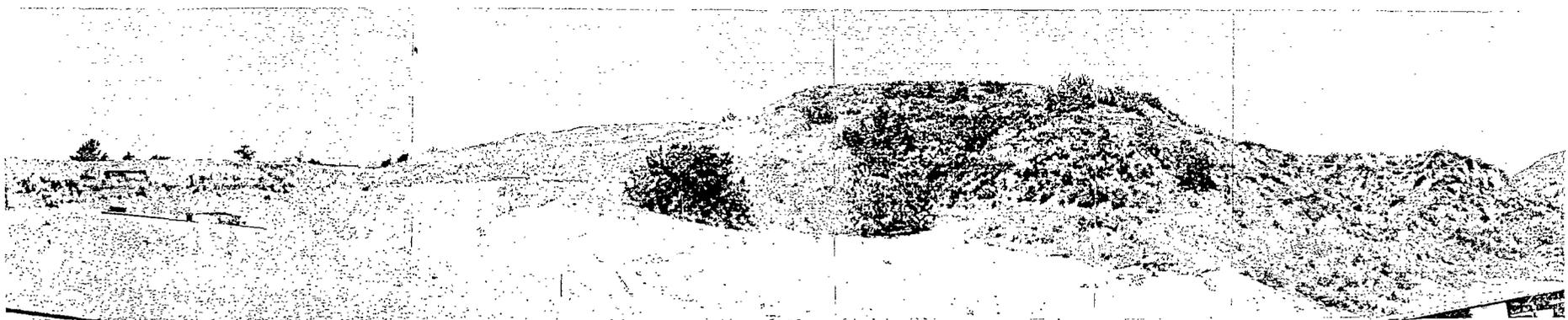
*Items a,b)* The largest portion of the two areas proposed for expansion is a small hill located adjacent and to the east of Balboa Boulevard (Figure 8A & B). This hill is located in the middleground of views towards the Jensen Plant from Interstate-5 (Golden State Freeway), and is not an important aesthetic resource. Other parts of the project, depending on the selected option, could include expansion of the existing tank farm (Figure 8C), construction of a new tank farm at the current service center location (Figure 8C), and relocation of the service center adjacent to existing filtration plant facilities. The washwater residuals building proposed by the project would also be located adjacent to the existing facilities. Figure 8D shows a typical view of the existing filtration plant.

In general, foreground and middleground views towards the project site and adjacent lands are industrial in character due to the presence of the LADWP Van Norman complex, the Jensen Plant, Interstate-5, and Southern Pacific Railroad. These views are occasionally obscured by landscaping and the elevational difference between Balboa Boulevard and the lower Jensen Plant, but the filtration facilities are readily visible for most of the length of Balboa Boulevard adjacent to the project site. Views from Balboa Boulevard south of Orozco Street, Bee Canyon Park, and adjacent residences are at the same elevation as the Jensen Plant and these views are directed north across the facilities with the hill forming part of the skyline. Distant background views are of the San Fernando Valley and its surrounding mountains.

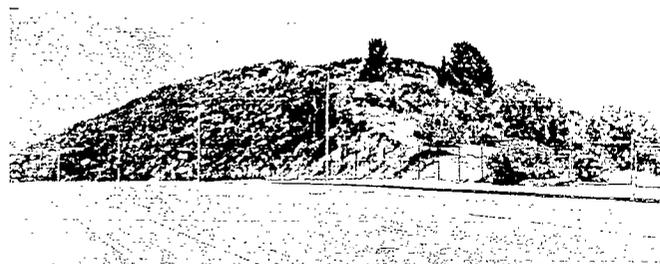
The proposed project would not obstruct any scenic vista or view open to the public. The proposed new pad which would be created from the excavation of a small hill and would be approximately 50 to 70 feet below Balboa Boulevard, thereby avoiding any intrusions on scenic vistas of the surrounding mountains. The proposed locations of the tank farm would expand the existing tank farm onto nearby graded areas, as would the additional rail spur lines. The stacking of additional rail cars on these spurs would not be noticeable because of screening by existing and proposed facilities. The removal of the small hill may open a scenic vista of the San Gabriel Mountains to traffic traveling north on Balboa Boulevard.

Construction of the proposed improvements would extend the northern end of the Jensen Filtration Plant into existing open space. The proposed facilities would retain the same basic height and architectural style as the existing facility. Landscaping proposed along the fence line adjacent to Balboa Boulevard would soften the visual impacts created by expansion of the existing facility and obscure views of the facility from travelers along Balboa Boulevard.

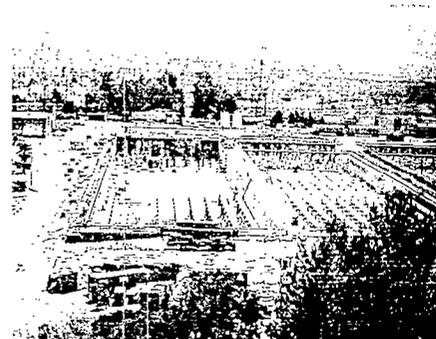
The construction of the washwater residuals building and the relocated service center (proposed project and Option 2) may cause an adverse aesthetic impact since these buildings would be partly visible from Balboa Boulevard and the adjacent residences. The service center complex, by nature, is visually unattractive (see Figure 8C) because of the outdoor storage of industrial vehicles and equipment and the expected split-block masonry wall construction. The washwater residuals building is anticipated to have a similar design, but it would be somewhat more screened by the approximate 10-foot elevational difference between the site and the higher



A. View northwesterly from inside Jensen Plant of hill proposed for removal. Elevation of truck on left side of photo approximates proposed pad elevation.



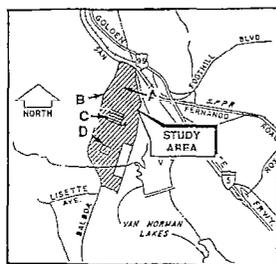
B. View northeast from Balboa Boulevard of hill proposed to be removed for ozonation facilities.



C. View east from Balboa Boulevard of current construction activities at Jensen Plant. Note tank farm and rail tank cars in middle ground, and service center on left edge of photograph. DWP Van Norman facilities are in background.



D. View southeast from Balboa Boulevard of existing Jensen Filtration Plant filters



Location of Photographs

**VIEWS OF JENSEN  
FILTRATION PLANT AND  
PROJECT SITE**  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program

### 3.0 Discussion Of Environmental Issues

Balboa Boulevard. However, current views from Balboa Boulevard and the adjacent residences are into an industrial-appearing facility, and while the proposed structures would move such visual characteristics closer to Balboa Boulevard, they will not alter the basic visual condition of the area. This adverse visual impact will also be further reduced by the proposed landscaping plans which require screening of the service center complex and the washwater residuals building from Balboa Boulevard.

The facilities layout under Option 2 would include an upper pad area that would be only 10-20 feet below the level of Balboa Boulevard and the top of the structures would be visible above Balboa Boulevard from some locations. If a cryogenic system is employed, the most prominent new facility will be the "cold box" tower, which will be approximately 50-75 feet above grade and visible from the entire length of Balboa Boulevard. Given the industrial visual characteristics of eastern views from Balboa Boulevard, this extension of such characteristics is considered an adverse, but not significant visual effect.

The chemical pipe corridor would be buried for most of its length and therefore visible only where it crosses the Weldon Canyon Creek tributary and the aqueduct. Current views of this area are from San Fernando Road and include high voltage towers, an electrical substation, concrete channels, railroad tracks, and other facilities with an industrial visual character. No visual impact is anticipated due to the construction of this pipe corridor.

The project would not adversely affect any of the applicable land use policies related to aesthetics and visual resources. Although no anticipated significant impacts would occur, the proposed project has incorporated measures to minimize visual conflicts with adjacent residences. Such measures will include, but are not limited to, landscaping, sensitive site design, and building setbacks.

#### 3.19 RECREATION

*Item a)* The southern portion of the Jensen Plant property is currently leased to the City of Los Angeles Department of Parks and Recreation. This parcel contains baseball diamonds and soccer fields. During the soccer season (August to December), between three to five fields are in use, typically after 4 p.m. till dusk on weekdays and all day on Saturday. Similarly, five diamonds would be in use during the same time frame during the main baseball season, which extends from January to July. The fields are heavily used and parking can become congested on game days.

Construction of the proposed improvements would occur in the western and/or northern portions of the Jensen Plant. Construction staging areas will occur near the fields, but would avoid the recreational fields and their parking lots. Construction or operation of the proposed project would not result in any impacts to the quality or quantity of existing recreational facilities.

### 3.20 CULTURAL RESOURCES

*Items a,b,c,d)* The Jensen Plant was originally part of the territory occupied by the Native American Gabrielino tribe. An archaeological reconnaissance survey and archival search of the plant property recorded no prehistoric or historic sites on the property (Northridge Center for Public Archaeology, June 1988) or within the areas proposed for the project improvements. No religious or sacred uses within the project areas are known to have occurred. Construction of the project improvements is not anticipated to result in any adverse physical or aesthetic effects to any cultural resources or ethnic cultural values. Based on the proposed location of project facilities on a relatively steep hillside or in previously graded areas, the exposure of unknown buried cultural deposits is unlikely. In addition, a cultural resources orientation meeting will be conducted for the construction contractor personnel to aid in that identification of any cultural material in the unlikely event that such is unearthed during project construction

The alignment of the proposed chemical pipe corridor is not yet precisely determined, but it is anticipated to primarily cross areas that have been previously disturbed by past agricultural and development activities. Such activities would have potentially destroyed surface indications of cultural remains. A records search of the pipe corridor area indicated that no known prehistoric or historic sites are located within this area (Archaeological Information Center, May 1994). However, the pipe corridor area has not been subjected to a site survey and four prehistoric sites are known to be within a 1-mile radius and extensive archaeological sites are known to occur in the general area of the Van Norman reservoir complex (Gates, 1975 in Northridge Center for Public Archaeology, 1988). Since it is possible that pipeline construction could unearth cultural resources, a Phase I archaeological survey will be required for the design alignment. This report will contain specific recommendations regarding the pipe corridor. In particular, if any cultural resources are discovered as a result of this investigation, suitable mitigation measures will be designed to avoid significant impacts. Preferentially, the primary mitigation measure will be avoidance of potentially significant finds through re-alignment of the pipe corridor.

## 4.0 MANDATORY FINDINGS OF SIGNIFICANCE

Yes    Maybe    No

Based on the information contained within Sections 1, 2 and 3.

- |  |   |   |          |
|--|---|---|----------|
| 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 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? | — | — | <u>X</u> |
| b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief definitive period of time while long-term impacts will endure well into the future.)  | — | — | <u>X</u> |
| c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)  | — | — | <u>X</u> |
| d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | — | — | <u>X</u> |

The proposed project would result in short-term impacts to air quality, traffic and noise related to project construction. These impacts would be reduced to a less than significant level by measures incorporated into the project design and implemented during the construction phase.

Beneficial impacts from the project would include improvements to public services and human health through improved water quality.

4.0 Mandatory Findings of Significance

On the basis of this initial evaluation:

I find 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 the mitigation measures described in Section III of this document have been added to the project. A NEGATIVE DECLARATION WILL BE PREPARED. [ X ]

I find the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required. [ ]

May 23, 1994  
Date

Kathleen M. Kunysz  
Signature

Kathleen M. Kunysz  
Manager, Environmental Affairs  
Metropolitan Water District of Southern California

## 5.0 LIST OF PREPARERS

### **Metropolitan Water District of Southern California**

Kathy Kunysz, Principal Environmental Specialist  
John Bednarski, Engineer  
Catherine Anderson, Senior Engineer  
Gordon Johnson, Principal Engineer

### **Fugro West, Inc.**

Duane Vander Pluym, D.Env., Supervising Professional/Project Manager  
Mary Maki, M.A., Environmental Analyst/Staff Archaeologist  
Dave Romero, Environmental Analyst  
Matt Ingamells, M.A., Project Environmental Professional (Air Quality)  
Jim Bianchin, R.G., C.E.G., Project Geologist  
Tom Blake, M.S., R.G., C.E.G., Principal Engineering Geologist

### **Pacific Southwest Biological Services**

Barry Jones, Biologist

### **Sapphos Environmental**

Marie Campbell, Principal, Environmental Protection Specialist  
Steven Patterson, Botanist  
Peter Bloom, Wildlife Biologist  
Judith Henckel, Wildlife Biologist

### **Paul S. Veneklasen & Associates**

Jose C. Ortega, Principal Associate  
Hooshang Khosrovani, Ph.D., P.E., Senior Associate

## 6.0 REFERENCES

- Abrams, L., 1923-1960. *Illustrated Flora of the Pacific States, Volume 1-4*. Stanford: Stanford University Press.
- Air Resources Board, 1992, 1991 and 1990. *California Air Quality Data, Summary of 1990, 1991 and 1992 Air Quality Data*.
- American Ornithologists' Union (AOU), 1983. *Check-list of North American Birds*. 6th ed. Lawrence, Kansas: Allen Press. With supplements in 1985, 1987, 1989, and 1991.
- Archaeological Information Center, UCLA Institute of Archaeology, 1994. *Archaeological Records Search for the Joseph Jensen Filtration Treatment Plant Oxidation Retrofit Program, Granada Hills, Los Angeles County, California*. (May) Records search conducted by Sarah E. Peltzie.
- Black & Veatch, Inc., 1993. *Oxygen Separation Technologies Study*. Metropolitan Water District Report No. 1043. P.O. Box 54153, Los Angeles, California 90054-0153.
- California Department of Fish and Game (CDFG), 1993. *Southern California Coastal Sage Scrub Scientific Review Panel, Conservation Guidelines*. 1416 9th Street, Sacramento, California 95814.
- California Department of Fish and Game (CDFG), 1991. *Southern California Coastal Sage Scrub Scientific Review Panel*. 1416 9th Street, Sacramento, California 95814.
- California Department of Transportation (Caltrans), 1990. *Manual of Traffic Controls for Construction and Maintenance of Work Zones*. 1900 Royal Oaks Drive, Sacramento, California, 95815.
- California Environmental Protection Agency, Air Resources Board, 1990, 1991, 1992. *California Air Quality Data, Summary of Air Quality Data Gaseous and Particulate Pollutants*. Volumes XXII, XXIII, and XXIV.
- California Natural Diversity Data Base (CNDDB), 1994. "RareFind: A Database Application for the Use of the California Department of Fish and Game's Natural Diversity Data Base." California Department of Fish and Game, State of California Resources Agency. Sacramento, California. San Fernando, California Quadrangle.
- Caterpillar, Inc., 1988. *Caterpillar Performance Handbook*. Caterpillar, Inc., Peoria, Illinois.
- Chambers, Brenda, 1994. City of Los Angeles, Department of Transportation, personal communication, (January).

## 6.0 References

De La Rosa, Manuel, 1994. Los Angeles Department of Water and Power, 111 N. Hope Street, Room 403, Los Angeles, California 90012, telephone conversation (May 19).

Fugro West, Inc., 1994. *Air Quality Technical Appendix*. Prepared for The Metropolitan Water District of Southern California, P.O. Box 54153, Los Angeles, California 90054-0153.

Hanes, T.L., 1988. "California Chaparral" *in* Barbour, M.G. and Major, J. (eds). *Terrestrial Vegetation of California*. 2nd ed. California Native Plant Society.

Hickman, J.C. (ed.), 1993. *The Jepson Manual*. Berkeley: University of California Press.

Holland, R.F., 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Sacramento: California Department of Fish and Game.

James, Cpt., 1994. City of Los Angeles Fire Department, Station 18, personal communication, (January).

Jennings, M.R., 1987. "An Annotated Check List of the Amphibians and Reptiles of California." *California Fish and Game* 69(3): 151-171.

Jones, J.K., Jr., D.C. Carter, H.H. Genoways, R.S. Hoffman, and D.W. Rice, 1982. "Revised Checklist of North American Mammals North of Mexico." *Occas. Pap. Mus. Texas Tech. Univ.*, No. 80.

Leroy Crandall and Associates, 1991. *Report of Geotechnical Investigation, Proposed Pipeline and Junction Structure, Jensen Filtration Plant, Granada Hills, California*. Prepared for the Metropolitan Water District of Southern California (LCA L90396.AEO), p. 16, (May 10).

Metropolitan Water District, 1993a. *Hazardous Materials Contingency Plan*. Updated annually. Metropolitan Water District, P.O. Box 54153, Los Angeles, California 90054-0153.

Metropolitan Water District, 1993b. *Emergency Response Plan*. (April) Metropolitan Water District, P.O. Box 54153, Los Angeles, California 90054-0153.

Metropolitan Water District, 1993c. *Risk Management Prevention Plan - Joseph P. Jensen Filtration Plant*. Metropolitan Water District, P.O. Box 54153, Los Angeles, California 90054-0153. Accepted by City of Los Angeles Fire Department (January).

Munz, P.A., 1974. *A Flora of Southern California*. Berkeley: University of California Press.

National Institute for Occupation Safety and Health, and Occupational Safety and Health Administration, (1980). *Pocket Guide to Chemical Hazards*, DHEW (NIOSH) Publication No. 78-210.

## 6.0 References

Northridge Center for Public Archaeology, 1988. *Report of Archaeological Reconnaissance Survey of the Proposed Joseph Jensen Filtration Plant Expansion, Van Norman Reservoir, CA.* Prepared for the Metropolitan Water District (June 20).

Peck, Julie, 1994. Southern California Gas Company, telephone communication (May 5).

South Coast Air Quality Management District (SCAQMD), 1993. *CEQA Air Quality Handbook*, updated November 1993.

Southwest Research Institute (SWRI), Undated. *Application of On-Highway Emissions Reduction Technology to an Off-Highway Engine.* SWRI Project No. 03-3354-200. Prepared for Santa Barbara Air Pollution Control District, 26 Castilian Drive, B-23, Goleta, California, 93711.

Spacht, Julie, 1994. Los Angeles Department of Water and Power, Engineering Design Division, telephone conversation (April 14).

Stebbins, R.C., 1985. *A Field Guide to Western Reptiles and Amphibians.* 2nd ed. Boston: Houghton Mifflin Company.

Stone Geological Service, Inc., 1963. *Major Cuts, Balboa Boulevard Realignment, Tentative Tract 28880, San Fernando Pass Area.* Prepared for the Donald R. Warren Company, 13 p. (December 6). Available at Metropolitan Water District, P.O. Box 54153, Los Angeles, California 90054-0153.

Stone Geological Service, Inc., 1966. *Proposed Phase II Cut Slopes for the Metropolitan Water District Balboa Treatment Plant; and As-Built Balboa Boulevard Cut Slopes.* Prepared for McIntire & Quiros, Inc. 12 p. (September 22). Available at Metropolitan Water District, P.O. Box 54153, Los Angeles, California 90054-0153.

Sweetwater Environmental Biologists, Inc., 1994. Letter report entitled *Coastal California Gnatcatcher Assessment on the Jensen Filtration Plant.* Prepared for the Metropolitan Water District of Southern California, P.O. Box 54153, Los Angeles, California 90054-0153 (March 31).

Talwar, Mahesh, 1994. Santa Barbara Air Pollution Control District, 26 Castilian, B-23, Goleta, California 93117, telephone conversation (April 12).

U.S. Environmental Protection Agency (USEPA), 1971. *Noise from Construction Equipment and Operations*, PB 206 717.

U.S. Environmental Protection Agency (USEPA), 1985. *Compilation of Air Pollutant Emission Factors.* AP-42, Volume II.

## 6.0 References

U.S. Geological Survey 7.5 Minute Series Topographic Quadrangle: San Fernando, California.

Veneklasen & Associates, 1994. *Ozone Generation Plant Noise Study - MWD Jensen Filtration Plant*, 10+ pgs. (21 March).

Woodward-Clyde Consultants (WCC), 1989a. *Geotechnical Investigation, Joseph Jensen Filtration Plant, Granada Hills, California*. Prepared for the Metropolitan Water District of Southern California. 41 p. (September 29).

Woodward-Clyde Consultants (WCC), 1989b. *Stability Evaluation of Northwestern Hill Area, Geotechnical Investigation, Joseph Jensen Filtration Plant, Granada Hills, California*. Prepared for the Metropolitan Water District of Southern California. 7 p. (March 13).

**RESPONSE TO COMMENTS RECEIVED ON  
THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION**

**JOSEPH P. JENSEN FILTRATION PLANT  
OXIDATION RETROFIT PROGRAM  
GRANADA HILLS, LOS ANGELES COUNTY, CALIFORNIA**

\* \* \* \* \*

**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA  
P.O. Box 54153  
Los Angeles, California, 90054-0153**

\* \* \* \* \*

July 1994



July 27, 1994

**MEMORANDUM FOR THE RECORD**

TO: All Interested Parties

FROM: The Metropolitan Water District of Southern California

SUBJECT: Response to Letters of Comment on the Mitigated Negative Declaration for the Joseph P. Jensen Filtration Plant Oxidation Retrofit Program

This Memorandum for the Record provides responses to letters of comment (Attachment 1) received by The Metropolitan Water District of Southern California (Metropolitan) on the Mitigated Negative Declaration (MND) for the Joseph P. Jensen Filtration Plant Oxidation Retrofit Program. In addition, minor corrections to the MND identified during the public review period are summarized in this Memorandum for the Record. Those corrections are as follows:

Figure 2: Change Title from "Facilities Layout Option 2" to "Facilities Plan Proposed Project"

Figure 5: Change Title from "Facilities Plan Proposed Project" to "Facilities Layout Option 2"

Page 3-25, Section 3.10 RISK OF UPSET, Item a), 2nd paragraph:

Add "Risk of upset and associated impacts on human health and human safety will be avoided through updating the Hazardous Materials Contingency Plan and Emergency Response Plan to include ozone and sulfuric acid upon completion of final design. The City of Los Angeles Fire Department will be notified of Metropolitan's intent to use ozone and sulfuric acid prior to the release of bid package. If required by the City of Los Angeles Fire Department, Metropolitan will prepare a Risk Management Prevention Plan within 30 days of operation of the Oxidation Retrofit Program. Metropolitan will prepare a Procedure Safety Manual for Ozone and Operations and Maintenance Manual for the ozonation process prior to operation."

Page 3-33, Section 3.17 HUMAN HEALTH, Items a), b), 5th paragraph:

Change "the chemical pipe corridor will use double-walled pipe where exposed above ground and be buried for the remainder of its length." to "the chemical pipeline corridor will use secondary containment throughout its length to prevent off-site spills." Change "If single-walled pipe is chosen for the buried portions of the pipeline, it will be contained in a concrete trench with removable cover." to "Some portions of the pipeline may be contained in a concrete trench with removable cover, double-walled pipe, or both."

The responses to letters of comment are as follows:

**Federal**

There were no federal agencies that provided letters of comment on the MND for the Joseph P. Jensen Filtration Plant Oxidation Retrofit Program.

**State**

**Governor's Office of Planning and Research, 1400 Tenth Street, Sacramento, CA, 95814.  
Michael Chiriatti, Jr., Chief, State Clearinghouse. July 1, 1994.**

The Clearinghouse's letter indicating that no comments were received from the Resources Agency, Conservation Agency, Department of Fish and Game, Caltrans, Health and Welfare, Air Resources Board, Regional Water Quality Control Board, DTSC/CTC, and the Air Resources Board is noted.

**State of California, Department of Transportation, 120 South Spring Street, Los Angeles, CA, 90012. Wilford Melton, Senior Transportation Planner, IGR/CEQA Coordinator, Advance Planning Branch. June 17, 1994.**

**Response to Comment No. 1**

Thank you for your letter acknowledging that there are no apparent impacts on the State Transportation System from the proposed projects.

**California Regional Water Quality Control Board, Los Angeles Region, 101 Centre Plaza Drive, Monterey Park, CA, 91754-2156. Mark Pumford, Chief, Stormwater Unit. June 10, 1994.**

**Response to Comment No. 1**

Thank you for your letter of comment. A Stormwater Pollution Prevention Plan (September 1992) was prepared for the Jensen Plant Expansion No. 1. A Notice of Intent was submitted to the State Water Resource Control Board September 29, 1992. Metropolitan will perform the Oxidation Retrofit Project under the existing Notice of Intent. The Stormwater Pollution Prevention Plan will be updated and submitted prior to construction.

**Local**

City of Los Angeles, Department of Fire, 200 N. Main Street, Los Angeles, California, 90012.  
Dal L. Howard, Assistant Fire Marshal. June 29, 1994.

**Response to Comment No. 1**

The MND includes an evaluation of three alternate access routes under consideration. Each of the alternatives under consideration would provide at least two different ingress/egress roads for new and upgraded facilities. Road design will accommodate fire apparatus.

The mitigation monitoring program will include the requirement for fire lanes to be constructed in accordance with the requirements of the City of Los Angeles, Department of Fire. There are no "dead end" streets in the three alternative road designs under consideration.

The alternative access routes evaluated in the MND would not exceed 15% in grade.

The mitigation monitoring program will include the requirement to maintain existing Fire Department access clear and unobstructed during demolition of existing structures.

Comments regarding maintenance, posting of signs, and width of fire lanes are noted. Project design will be responsive to these comments.

The proposed project does not include the construction of apartments.

**Response to Comment No. 2**

Metropolitan will coordinate with the Fire Department regarding plot plans for access routes.

**Response to Comment No. 3**

Metropolitan will coordinate with the Fire Department regarding the need for additional fire hydrants.

**Response to Comment No. 4**

The need to install sprinkler systems will be assessed in accordance with the Uniform Fire Code with California Amendments and other applicable statutes and regulations.

**Response to Comment No. 5**

The proposed project involves the use of ozone and sulfuric acid which meet the designation of an "Extremely Hazardous Substance" pursuant Appendix A, Part 355, Subchapter J, Chapter I, 40 CFR. See correction to Page 3-25, above.

**Response to Comment No. 6**

Comment acknowledged.

**Response to Comment No. 7**

Metropolitan will coordinate plans and specifications with the Department.

**City of Los Angeles, Department of City Planning, 8258 Van Nuys Boulevard, Van Nuys, CA, 91411. Frank Fielding, Senior City Planner. June 29, 1994.**

**Response to Comment No. 1**

Comment acknowledged. Each of the three alternative designs considered to accommodate the proposed Joseph P. Jensen Plant Oxidation Retrofit Program require excavation of the hill that is located along Balboa Boulevard.

**Response to Comment No. 2**

Comment acknowledged. Typical views of the Joseph P. Jensen Filtration Plant from Balboa Boulevard and neighboring residences are shown in Figure 8 (Photographs B, C, and D). Following implementation of the proposed Oxidation Retrofit Programs, views of the area that currently consist of the hill adjacent to Balboa Boulevard would be replaced with views similar to those shown in Figure 8. The commitment to minimize visual conflicts with adjacent residences through incorporation of measures including landscaping, sensitive site design, and building setbacks is provided on page 3-37 of the MND.

**Response to Comment No. 3**

Those measures proposed on page 3-37 of the MND to minimize visual conflicts with adjacent residences through incorporation of landscaping, sensitive site design, and building setbacks would be considered for all options under evaluation. The City of Los Angeles, Department of City Planning comments regarding Option 2 will be taken into consideration by Metropolitan during the decision-making process.

Department of Water and Power, P.O. Box 111, Los Angeles, CA, 90051-0100. J. Alan Walti, Manager of Environmental Services and Planning. July 5, 1994

#### **Response to Comment No. 1**

As indicated on page 3-31 of the MND, coordination was undertaken with the Los Angeles Department of Water and Power (Manuel de la Rosa, May 19, 1994) regarding the anticipated requirements for electrical energy (48,000 kwh/day). Based on that coordination, it was determined that there will be sufficient capacity to accommodate a dual 33kV line to the Jensen Plant from Balboa Boulevard prior to project construction. Therefore, the MND did not include the impacts of construction of new electrical facilities on noise, air quality, or traffic as part of the analysis.

#### **Response to Comment No. 2**

Comment acknowledged. The need to avoid excavations within 50-feet of any transmission tower will be taken into consideration during final design and engineering. As proposed, the chemical pipe corridor will use full secondary containment where the pipeline is buried such as double-walled pipe, concrete trench with removable cover, or both. A leak detection system will be contained in the annular space of the double-walled pipelines. The trench will be designed to drain any spilled chemicals to specified locations where they may be detected by the leak detection system contained in the trench and recovered.

#### **Response to Comment No. 3**

The chemical pipe corridor is a facility mutually requested by the Water System of the City of Los Angeles Department of Water and Power (Bruce Kuebler) and Metropolitan. Metropolitan expects LADWP to take responsibility for construction, maintenance, and monitoring of the secondary containment of the chemical corridor on their property. Metropolitan acknowledges the need to coordinate the final location of the chemical pipe corridor across LADWP property and the associated mitigation measures to reduce the hazards associated with liquefaction of underlying soils. Coordination of the proposed location of the chemical pipe corridor with the LADWP Planning Section (Julie Spacht) was initiated during preparation of the MND.

#### **Response to Comment No. 4**

Metropolitan will consider the *Commercial Energy Conservation Mitigation Measures* during final design and engineering. It should be noted that many of the recommended measures are not applicable for industrial facilities.

**Texaco Exploration and Production, Inc., Felipe Valenzuela**

**Response to Comment No. 1**

Thank you for your letter indicating transfer of ownership/easement to The Gas Company. A copy of the Mitigated Negative Declaration was provided to The Gas Company for review and comment.

40985

**ATTACHMENT**  
**LETTERS OF COMMENT**

---

## GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET  
SACRAMENTO, CA 95814

July 1, 1994

DEIRDRE WEST  
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
P.O. BOX 54153  
LOS ANGELES, CA 90054-0153Subject: JOSEPH P. JENSEN FILTRATION PLANT OXIDATION RETROFIT SCH  
#: 94061002

Dear DEIRDRE WEST:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. 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 call Mark Goss at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Chiriatti, Jr.", written over a horizontal line.

Michael Chiriatti, Jr.  
Chief, State Clearinghouse

Notice of Completion

Appendix F

SCH # 94061002

Mail to: Same Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916445-0613

Project Title: Joseph P. Jensen Filtration Plant Oxidation Retrofit
Lead Agency: Metropolitan Water District of Southern CA
Street Address: P.O. Box 54153
City: Los Angeles

Project Location
County: Los Angeles
City/Nearest Community: Granada Hills
Assessor's Parcel No.
Within 2 Miles: State Hwy #, Waterways, Airports, Railways, Schools

Document Type

CEQA: MOP, Supplement/Subsequent, EIR (Prior SCH No.), Other
NEPA: NOI, EA, Draft EIS, FONSI
Other: Joint Document, Final Document, Other

Local Action Type

General Plan Update, General Plan Amendment, General Plan Element, Community Plan, Specific Plan, Master Plan, Planned Unit Development, Site Plan, Renton, Prisons, Use Permit, Land Division (Subdivision, Parcel Map, Trust Map, etc.), Amusement, Redevelopment, General Plan, Other

Development Type

Residential: Units, Acres, Office: Sq ft, Acres, Employees, Commercial: Sq ft, Acres, Employees, Industrial: Sq ft, Acres, Employees, Educational, Recreational, Water Pollution: Type, MGD, Transportation: Type, Mining: Mineral, Power: Type, Wats, Waste Treatment Type, Hazardous Waste: Type, Other

Project Issues Discussed in Document

Aesthetic/Visual, Agricultural Land, Air Quality, Archeological/Historical, Coastal Zone, Drainage/Absorption, Economics/Job, Fiscal, Flood Plain/Flooding, Forest Land/Fire Hazard, Geologic/Seismic, Minerals, Noise, Population/Housing Balance, Public Services/Facilities, Recreation/Parks, Schools/Universities, Sewer Systems, Sewer Capacity, Soil Erosion/Compaction/Grading, Solid Waste, Toxic/Hazardous, Traffic/Congestion, Vegetation, Water Quality, Water Supply/Groundwater, Wetland/Riparian, Wildlife, Growth Inducing, Landuse, Cumulative Effects, Other

Present Land Use/Zoning/General Plan Use

Project Description

Filtration Plant Oxidation Retrofit Program

CLEARINGHOUSE CONTACT: MARK GOSS (916) 445-0613

STATE REVIEW BEGAN: 6-1-94
DEPT REV TO AGENCY: 6-24
AGENCY REV TO SCH: 6-29
SCH COMPLIANCE: 7-1

CHT SNT
Resources
Boating
Coastal Comm
Coastal Conserv
Colorado Rvr Bd
Conservation
Fish & Game S
Forestry
Parks & Rec/OHP
Reclamation
BCDC
DWR

CHT SNT
State/Consumer Svcs
General Services
OLA (Schools)
Cal/EPA
ARB
CA Waste Mgmt Bd
SWRCB:--Grants
SWRCB:--Delta
SWRCB:--Wtr Quality
SWRCB:--Wtr Rights
Reg. WQCB # 4
DTSC/CTC
Yth/Adlt Corrections
Corrections
Independent Comm
Energy Comm
NAHC
PUC
Santa Mn Mtns
State Lands Comm
Tahoe Rgl Plan
Other:

PLEASE NOTE SCH NUMBER ON ALL COMMENTS

PLEASE FORWARD LATE COMMENTS DIRECTLY TO THE LEAD AGENCY ONLY

AQHD/APCD: 33 (Resources: 6, 4)

(\*S\* = sent by lead / \*\* = sent by SCH)

**M e m o r a n d u m**

To : Mr. Mark Goss  
State Clearinghouse  
1400 Tenth Street, Room 121  
Sacramento, CA 95814

Date : June 17, 1994

File No.: IGR/CEQA/ND  
Joseph P. Jensen  
Filtration Plant  
Oxidation Retrofit  
Program, Near Balboa  
Blvd/San Fernando  
Road intersection  
Vic. LA-5-44.43

Wilford Melton -District 7

From : DEPARTMENT OF TRANSPORTATION

Subject: Project Review Comments

SCH NO. 94061002

Caltrans has reviewed the above-referenced document. Based on the information received, we find no apparent impact on the State Transportation system. | 1

If you have any questions regarding this response, please call me at (213) 897-1338.

Original Signed By

WILFORD MELTON  
Senior Transportation Planner  
IGR/CEQA Coordinator  
Advance Planning Branch

cc: Deirdre West, Metropolitan Water District of Southern CA  
P.O. Box 54153, Los Angeles, CA 90054-0153

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

101 CENTRE PLAZA DRIVE  
MONTEREY PARK, CA 91754-2156  
(213) 266-7500  
FAX: (213) 266-7600



June 10, 1994

Ms. Kathleen M. Kunysz  
Manager, Environmental Affairs  
Metropolitan Water District of Southern California  
P. O. Box 54153  
Los Angeles, CA 90054-0153

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION,  
JOSEPH P. JENSEN FILTRATION PLANT, OXIDATION RETROFIT PROGRAM,  
GRANADA HILLS, LOS ANGELES COUNTY, CALIFORNIA (File No. 300.1508)

We have reviewed the subject document regarding the proposed project, and have the following comments:

- We have no further comments at this time.
- The proposed project should address the attached | 1  
comments.

Thank you for this opportunity to review your document. If you have any questions, please contact Dr. Wen Yang at (213) 266-7659.

A handwritten signature in black ink, appearing to read "Mark R. Pumford".

Mark R. Pumford, Chief  
Stormwater Unit

cc: Tom Loftus, State Clearinghouse

Attachments: SE

Kathleen M. Kunysz  
Page 2

1. Soil Erosion Concerns:

- a. Every precaution should be taken to prevent water quality impacts resulting from soil erosion and increased surface runoff, especially during grading and construction activities.
- b. Adequate storm drainage facilities should be made available to minimize soil erosion.
- c. Based on the information provided, the project site is an area potentially subject to high erosion and high mud flow conditions. In addition, the site is located in an area having moderately high slope instability. Development of the site may result in additional impermeable surfaces, which could increase the volume and intensity of storm water runoff and accelerate soil erosion. Therefore, the project should include mitigation measures that will minimize the water quality impacts surrounding the site.
- d. Discharges of storm water associated with construction activity resulting in soil disturbances of five acres or more are required to submit a Notice of Intent (NOI) to be covered under the General Construction Activity Storm Water Permit to the State Water Resources Control Board. Storm water discharges from construction activity that results in a land disturbance of less than five acres, but which is part of a larger common plan of development or sale, are also required to apply.

CITY OF LOS ANGELES  
CALIFORNIA

BOARD OF  
FIRE COMMISSIONERS  
485-6032

ELIZABETH H. LOWE  
PRESIDENT

DAVID W. FLEMING  
VICE-PRESIDENT

LARRY GONZALEZ

MICHELLE EUNJOO PARK-  
STEEL

LESLIE SONG WINNER

LYNNE NELSON  
EXECUTIVE ASSISTANT



RICHARD J. RIORDAN  
MAYOR

DEPARTMENT OF FIRE  
200 NORTH MAIN STREET  
LOS ANGELES, CA 90012

DONALD O. MANNING  
CHIEF ENGINEER  
AND  
GENERAL MANAGER

June 29, 1994

Ms. Deidre West  
The Metropolitan Water District  
of Southern California  
P.O. Box 54153  
Los Angeles, Ca. 90054-0153

Dear Ms. West:

Initial Environmental Study  
Joseph P. Jensen Filtration Plant

The proposed project consists of construction of several new facilities as well as demolition and relocation of some existing plant facilities. This project is proposed for the purpose of upgrading the filtration system to comply with new and upcoming drinking water quality regulations.

The Fire Department has several concerns regarding the upgrading of this facility as follows:

A. ACCESS AND ROADWAYS

At least two different ingress/egress roads for each area, that will accommodate major fire apparatus and provide for major evacuation during emergency situations shall be required.

Fire lanes, where required, and dead ending streets shall terminate in a cul-de-sac or other approved turning area. No dead ending street or fire lane shall be greater than 700 feet in length or secondary access shall be required.

Construction of public or private roadway in the proposed development shall not exceed 15% in grade.

During demolition the Fire Department access will remain clear and unobstructed.

All access roads, including fire lanes, shall be maintained in an unobstructed manner, removal of obstructions shall be at the owner's expense. The entrance to all required fire lanes or required private driveways shall be posted with a sign no less than three square feet in area in accordance with Section 57.09.05 of the Los Angeles Municipal Code.

Fire lane width shall not be less than 20 feet. When a fire lane must accommodate the operation of Fire Department aerial ladder apparatus or where fire hydrants are installed, those portions shall not be less than 28 feet in width.

The entrance or exit of all ground apartment units shall not be more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

#### B. PLOT PLANS

Submit plot plans that show the access road and the turning area for Fire Department approval.

#### C. HYDRANTS

Adequate off-site public and on-site private fire hydrants may be required. Their number and location to be determined after the Fire Department's review of the plot plan.

#### D. SPRINKLER REQUIREMENT

The Fire Department has existing fire stations at the following locations for initial response into the area of the proposed development:

Fire Station 18  
Single Engine Company  
12050 Balboa Boulevard  
Miles - 1.6 Miles

Fire Station 75  
Task Force and Paramedic Rescue  
15345 San Fernando Mission Boulevard  
Miles - 3.5 Miles

1

2

3

4

Ms. Deidre West  
June 29, 1994  
Page 3

The above distances were computed to 13100 Balboa Boulevard.

Based on this criteria response distance from existing fire stations, fire protection would be considered inadequate.

In order to mitigate the inadequacy of fire protection in travel distance, sprinkler systems will be required throughout any structure to be built, in accordance with the Los Angeles Municipal Code, Section 57.09.07.

#### E. HAZARDOUS MATERIALS

Businesses that intend to handle Extremely Hazardous Substances (Appendix A, Part 355, Subchapter J, Chapter I, 40CFR) at or above State of California threshold planning quantity (TPQ) may be required to participate in "Hazardous Material Management" (California Health and Safety Code, Chapter 6.95, Article 2).

Businesses that intend to handle Extremely Hazardous Materials at or above State TPQ's shall notify the Hazardous Materials Section of the Fire Department in writing. If a Risk Management and Prevention Program (RMPP) is required by the Fire Department, the RMPP shall be completed before the facility begins operation.

RMPP means all of the administrative and operational programs of a business which are designed to prevent acutely hazardous materials accident risks, including, but not limited to, programs which include design safety of new and existing equipment, standard operating procedures, preventative maintenance programs, operator training and accident investigation procedures, risk assessment for unit operations, or operating alternatives, emergency response planning, and internal or external audit procedures to ensure that these programs are being executed as proposed - Health and Safety Code, Section 25532(g).

For additional information, please contact the Hazardous Materials Section at (213) 485-8080.

#### CONCLUSION

The proposed project shall comply with all applicable State and local codes and ordinances, and the guidelines found in the Fire Protection and Fire Prevention Plan, as well as the Safety Plan, both of which are elements of the General Plan of the City of Los Angeles (C.P.C. 19708).

4

5

6

Ms. Deidre West

June 29, 1994

Page 4

Definitive plans and specifications shall be submitted to this Department and requirements for necessary permits satisfied prior to commencement of any portion of this project.

For any additional information please contact Inspector Alicia L. Mathis, of our Hydrant Unit at (213) 485-5964.

Very truly yours,

DONALD O. MANNING  
Chief Engineer and General Manager



Dal L. Howard, Assistant Fire Marshal  
Bureau of Fire Prevention and Public Safety

DLH:ALM:ch/a:\jentipl.wp

cc: Hal Bernson, Twelfth Council District  
Environmental Affairs Commission  
Fire Department Planning Section

CITY OF LOS ANGELES  
CALIFORNIA



RICHARD J. RIORDAN  
MAYOR

DEPARTMENT OF  
CITY PLANNING  
6255 VAN NUYS BOULEVARD  
VAN NUYS, CA 91411  
(818) 989-8044

CON HOWE  
DIRECTOR

FRANKLIN P. EBERHARD  
DEPUTY DIRECTOR  
(213) 237-1986

MELANIE S. FALLON  
DEPUTY DIRECTOR

ROBERT H. SUTTON  
DEPUTY DIRECTOR  
(213) 237-1818

FAX (213) 237-0552

CITY PLANNING  
COMMISSION  
—  
MARNA SCHNABEL  
PRESIDENT  
LES HAMASAKI  
VICE-PRESIDENT  
ROBERT L. SCOTT  
SHELLY S. SUZUKI  
ANTHONY N. R. ZAMORA

—  
RAMONA HARO  
SECRETARY

(213) 485-5071

June 29, 1994

Ms. Deirdre West  
Manager, Environmental Affairs  
Metropolitan Water District of  
Southern California  
P.O. Box 54153  
Los Angeles, CA 90054-0153

Dear Ms. West:

**REQUEST FOR REVIEW AND COMMENTS ON THE INITIAL STUDY AND MITIGATED  
NEGATIVE DECLARATION - JOSEPH P. JENSEN FILTRATION PLANT, OXIDATION  
RETROFIT PROGRAM, GRANADA HILLS.**

This is in response to your request for comments on the above-mentioned project.

The project is located within the Granada Hills-Knollwood District Plan and is designated Open Space. The neighborhood is characterized by mountainous terrain, single-family view homes located in a semi-rural area. A major concern of the community is that development in the hillsides should be minimized and that the hillside development standards and criteria in the Granada Hills-Knollwood Community Plan need to be followed. The regulations specify that the natural topography and ridgelines will be preserved to the greatest extent possible and should be the primary criteria used to determine the placement and/or alignment of structures, roads and drainage facilities.

We are concerned about the proposed removal of the hill for the ozonation facilities. Contrary to your statement in Sec. 3.18 "Aesthetics", we believe the hill is an important aesthetic resource and shields the industrial facility from vehicular traffic on Balboa Boulevard. Therefore, the proposed project should incorporate extensive mitigation measures to minimize visual conflicts with adjacent residences and views along Balboa Boulevard.

Deirdre West  
June 29, 1994  
Page Two

It would also appear that the facilities layout under option 2 would have a more adverse visual impact on the nearby single family residential area to the northwest and traffic along Balboa Boulevard. As indicated in the report, the cryogenic system if employed, would have a tower 50 to 75 feet above grade that would have a visible adverse impact on the entire length of Balboa Boulevard. For aesthetic reasons the Department would oppose the choice of Option 2 and the development of the tower.

3

Thank you for the opportunity to submit these comments. If you have any questions regarding this letter, please contact Ms. Madhu Kumar at (818) 756-8044.

Sincerely,

CON HOWE  
Director of Planning

  
By: Frank Fielding  
Senior City Planner

CH:FF:MK:vl

Files\Grandeir.mak

# Department of Water and Power the City of Los Angeles

RICHARD I. RIORDAN  
Mayor

Commission  
DENNIS A. THO, *President*  
CONSTANCE L. RICE, *Vice President*  
JOSÉ DE JESÚS LEGASPI  
JUDY M. MILLER  
MARCIA F. VOLPERT  
JUDITH K. KASNER, *Secretary*

KENNETH S. MIYOSHI, *General Manager and Chief Engineer*  
ELDON A. COTTON, *Assistant General Manager—Power*  
JAMES F. WICKSFR, *Assistant General Manager—Water*  
PHYLLIS E. CURRIE, *Chief Financial Officer*

July 5, 1994

Ms. Deirdre West  
The Metropolitan Water District  
of Southern California  
P.O. Box 54153  
Los Angeles, California 90054-0153

Dear Ms. West:

Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program  
Mitigated Negative Declaration

This is in reply to your letter dated May 31, 1994 requesting comments on the above project.

The proposed project consists of modifying the existing Joseph P. Jensen Filtration Plant to comply with current and pending federal and state drinking water regulatory requirements.

The Los Angeles Department of Water and Power (LADWP) will be working with you to provide any additional electrical service needed for the project. Electrical facility construction may cause temporary impacts to the surrounding communities in the form of unavoidable noise, air pollution, and traffic congestion during construction and should be considered.

It cannot be determined at this time, due to the early planning stages of the project, whether or not the project will significantly affect the electrical distribution infrastructure. Consultation with our new business engineering section, after project planning and design, will help determine any electrical distribution impacts.

The new construction involved with this facility will be located away from LADWP electrical transmission lines and should not have any direct impact on LADWP facilities. However, the proposed chemical pipeline route is in close proximity to several electrical transmission towers and no excavations will be permitted within 50 feet of any transmission tower. The proposed pipeline route passes through LADWP property that has liquified during both the 1971 San Fernando earthquake and the recent 1994 Northridge earthquake (see Figure 2). In both seismic events, existing buried pipes have been ruptured along the proposed

Water and Power Conservation... a way of life

pipeline route. If these chemical pipelines were to rupture in a future seismic event, the resulting mixture of oxygen, sulfuric acid, and/or caustic soda with possible sparks from the nearby power transmission lines could present a dangerous if not explosive combination.

2

Enclosed Figures 1 through 4 outline the locations of surface ruptures, ground movements, and damaged pipelines in the area resulting from both the 1971 and 1994 earthquakes. The Metropolitan Water District of Southern California (MWD) should coordinate efforts with LADWP to select a final pipeline route across LADWP property as well as to determine working mitigation measures against the hazard of liquefaction.

3

Based on the project description, some of the enclosed commercial energy conservation measures may apply and should be considered for inclusion.

4

Thank you for the opportunity to comment on the project. If you or your staff have any questions regarding this letter, please contact Mr. Douglas Varner or my staff at (213) 367-0216.

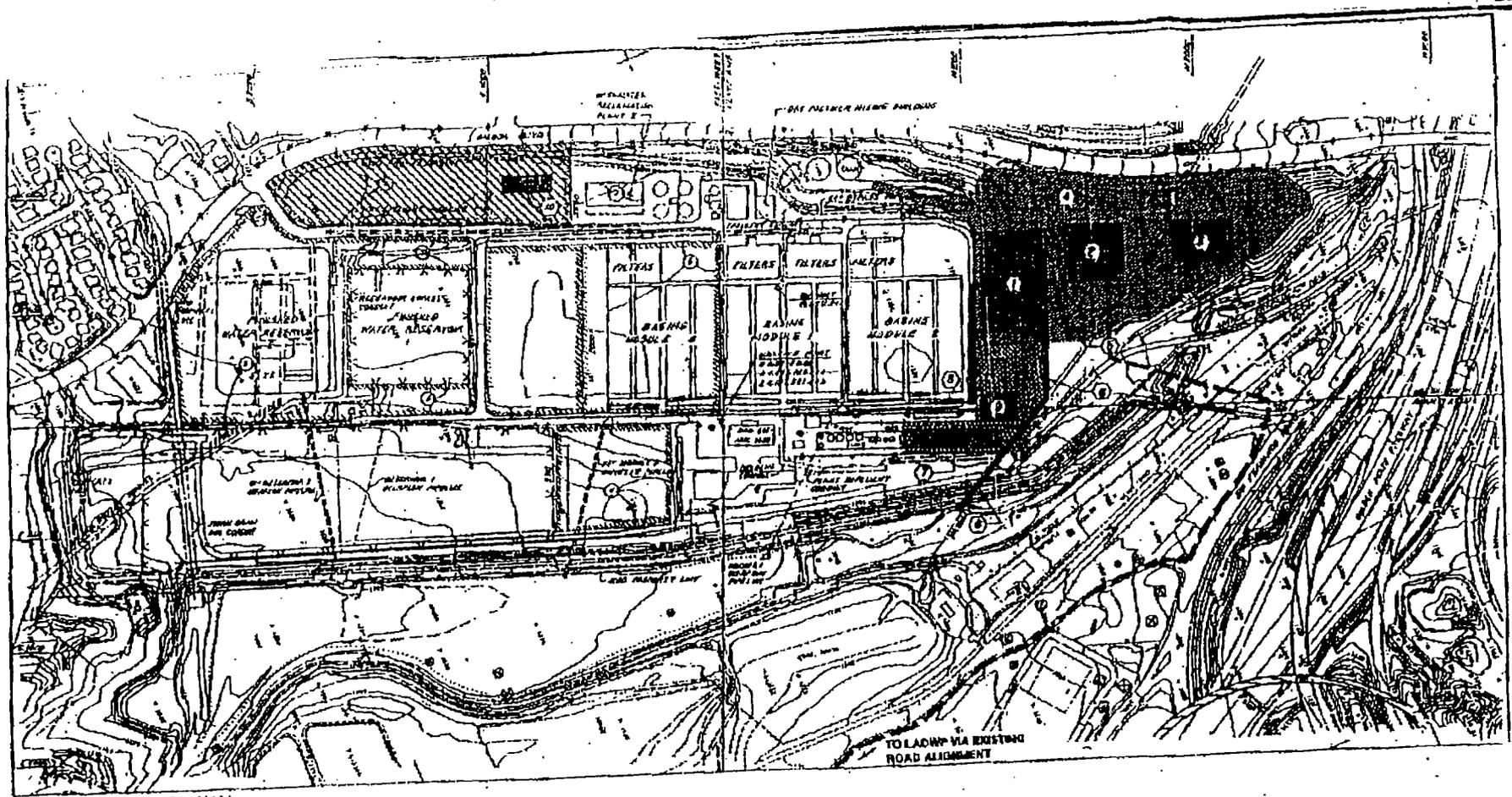
Sincerely,

*J. Alan Walti*

J. ALAN WALTI  
Manager of Environmental  
Services and Planning

Enclosures

c: Mr. Douglas Varner



SOURCE: Metropolitan Water District

**LEGEND**

New Graded Area	Existing Service Center Area	Existing Graded Area	Existing Tank Farm Area
① Ozone Contactors	② Ozone Contactor Overflow Pipeline	⑩ Washwater Residuals Processing	⑦ Chemical Tank Farm
② Liquid Oxygen Storage and Oxygen Separation Plant	③ Contactor Effluent Conduit	Chemical Pipe Corridor	
③ Ozone Generation Building	④ Service Center		
④ Return Washwater Pipeline			
⑤ Inboard Pipeline			

NORTH  
 0 400 800 FEET

**FACILITIES LAYOUT  
OPTION 1**  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program

**HWD CHEMICAL PIPE CORRIDOR  
LOCATION MAP**

**FIGURE 1**



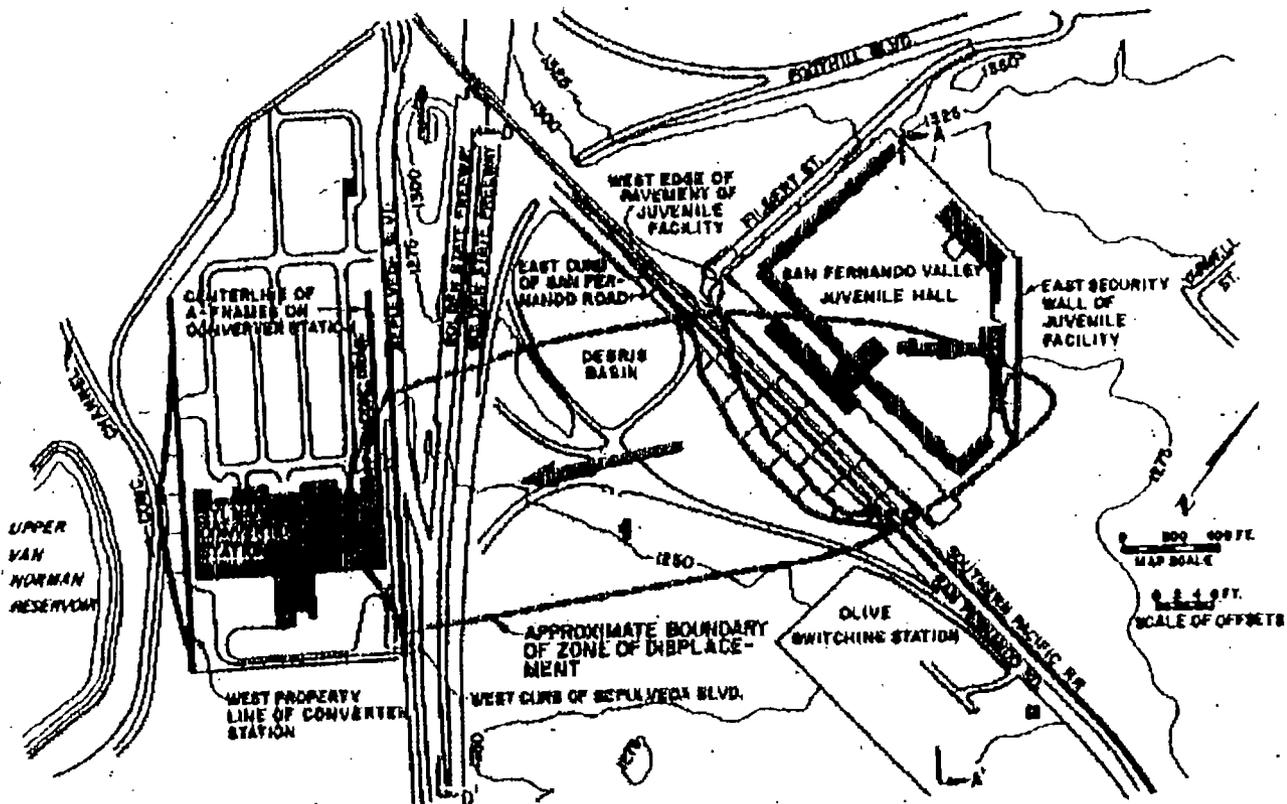
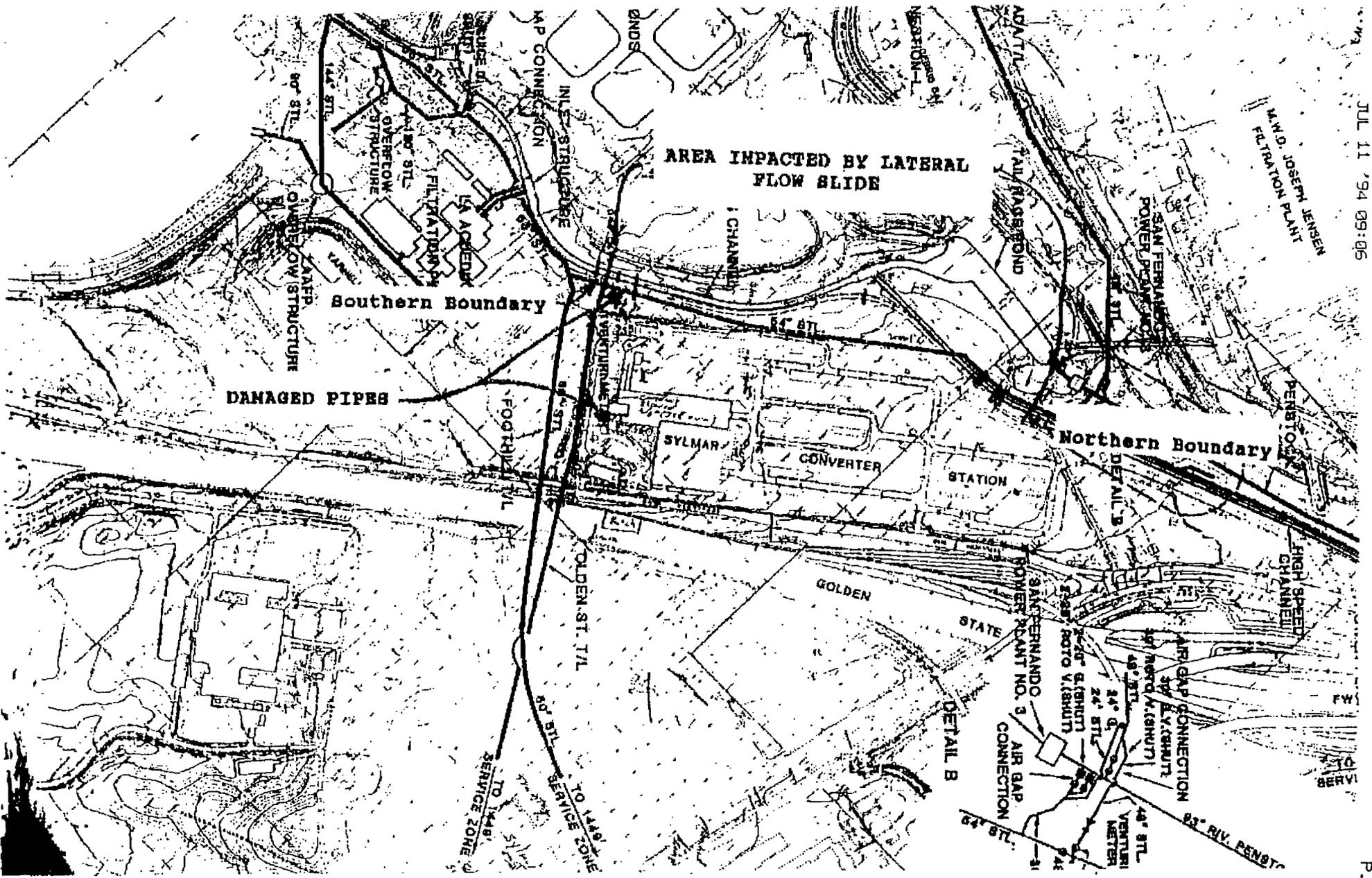


Figure No. 3 - Relative lateral ground movement in the zone of displacement caused by the 1971 San Fernando Earthquake (From C.D.M.G. Bull 196, pg. 159)



LOCATION OF DAMAGED PIPES  
AND  
AREA IMPACTED BY LATERAL FLOW SLIDE

FIGURE 4

Commercial Energy Conservation Mitigation Measures

During the design process, the applicant should consult with the Los Angeles Department of Water and Power, Energy Services Subsection, regarding possible energy conservation measures. The applicant shall incorporate measures which will exceed minimum efficiency standards for Title XXIV of the California Code of Regulations.

- Built-in appliances, refrigerators, and space-conditioning equipment should exceed the minimum efficiency levels mandated in the California Code of Regulations.
- Install high-efficiency air conditioning controlled by a computerized energy-management system in the office and retail spaces which provides the following:
  - A variable air-volume system which results in minimum energy consumption and avoids hot water energy consumption for terminal reheat;
  - A 100-percent outdoor air-economizer cycle to obtain free cooling in appropriate climate zones during dry climatic periods;
  - Sequentially staged operation of air-conditioning equipment in accordance with building demands; and
  - The isolation of air conditioning to any selected floor or floors.
  - Consider the applicability of the use of thermal energy storage to handle cooling loads.
- Cascade ventilation air from high-priority areas before being exhausted, thereby, decreasing the volume of ventilation air required. For example, air could be cascaded from occupied space to corridors and then to mechanical spaces before being exhausted.
- Recycle lighting-system heat for space heating during cool weather. Exhaust lighting-system heat from the buildings, via ceiling plenums, to reduce cooling loads in warm weather.
- Install low and medium static-pressure terminal units and ductwork to reduce energy consumption by air-distribution systems.
- Ensure that buildings are well-sealed to prevent outside air from infiltrating and increasing interior space-conditioning

loads. Where applicable, design building entrances with vestibules to restrict infiltration of unconditioned air and exhausting of conditioned air.

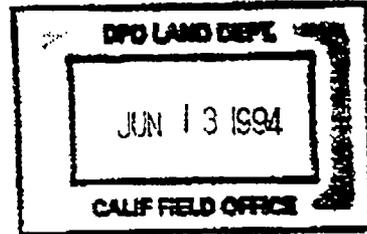
- A performance check of the installed space-conditioning system should be completed by the developer/installer prior to issuance of the certificate of occupancy to ensure that energy-efficiency measures incorporated into the project operate as designed.
- Finish exterior walls with light-colored materials and high-emissivity characteristics to reduce cooling loads. Finish interior walls with light-colored materials to reflect more light and, thus, increase lighting efficiency.
- Install thermal insulation in walls and ceilings which exceeds requirements established by the California Code of Regulations.
- Design window systems to reduce thermal gain and loss, thus, reducing cooling loads during warm weather and heating loads during cool weather.
- Install heat-reflective draperies on appropriate exposures.
- Install fluorescent and high-intensity-discharge (HID) lamps, which give the highest light output per watt of electricity consumed, wherever possible including all street and parking lot lighting to reduce electricity consumption.
- Install occupant-controlled light switches and thermostats to permit individual adjustment of lighting, heating, and cooling to avoid unnecessary energy consumption.
- Install time-controlled interior and exterior public area lighting limited to that necessary for safety and security.
- Control mechanical systems (HVAC and lighting) in the building with timing systems to prevent accidental or inappropriate conditioning or lighting of unoccupied space.
- Incorporate windowless walls or passive solar inset of windows into the project for appropriate exposures.
- Design project to focus pedestrian activity within sheltered outdoor areas.

For additional information concerning these conservation measures, please contact Mr. Brian Belier, Manager of the New Construction Unit of Energy Services Subsection, at (213) 481-5202.

We have reviewed the subject project and find that

(We have no facilities that will appear to conflict with same.)  
(We have facilities that do not appear to conflict with same.)

Texaco Exploration and Production, Inc.



MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

By:

*Felipe Valenzuela*

805-763-8261

*No longer operate in the area, sold to Southern Cal. Gas*

May 31, 1994

Dear Interested Party:

Mitigated Negative Declaration  
Joseph P. Jensen Filtration Plant  
Oxidation Retrofit Program  
Granada Hills, Los Angeles, California

Enclosed is a Mitigated Negative Declaration for the Oxidation Retrofit Program of the Joseph P. Jensen Filtration Plant (Jensen Plant) located in Granada Hills, Los Angeles County, California. The document describes the potential environmental impacts of constructing and modifying a number of facilities at the Jensen Plant to comply with current and pending federal drinking water standards. The proposed improvements will convert the principal on-site disinfection system from the current chlorination process to ozonation.

We are requesting that you review the Mitigated Negative Declaration and provide us with your written comments on the adequacy of the environmental information contained in it. Because of the time limits mandated by State law, your comments should be sent at the earliest possible date, but not later than June 29, 1994. Please provide written comments to:

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

Attention Ms. Deirdre West

If you have any questions regarding the proposed project or would like additional information, please contact Ms. West at (213) 217-6696.

Very truly yours,

*Kathleen M. Kunysz*  
Kathleen M. Kunysz  
Manager, Environmental Affairs

DMW:led/s:\wrcshare\NgDcJnsn

Enclosure