Initial Study/Proposed Mitigated Negative Declaration

Santa Ynez Reservoir
Water Quality Improvement Project

Los Angeles Department of Water and Power
Environmental Affairs
111 North Hope Street, Room 1044
Los Angeles, California 90012

October 2003

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SECTION 1.0

INTRODUCTION

The following discussion of potential environmental effects was completed in accordance with Section 15063(d)(3) of the CEQA Guidelines (2003) to determine if the project may have any significant effect on the environment.

CEQA INITIAL STUDY FORM

Project Title:

Santa Ynez Reservoir Water Quality Improvement Project

Lead Agency Name and Address:

Los Angeles Department of Water and Power
Environmental Affairs
111 North Hope Street, Room 1044
Los Angeles, CA 90012

Contact Person and Phone Number:

Tania Bonfiglio
Environmental Assessment
Los Angeles Department of Water and Power
(213) 367-3027

Project Location:

Santa Ynez Reservoir, an existing (open) potable water storage reservoir located at 1351 Palisades Drive in the Pacific Palisades community of the City of Los Angeles.

Council District:

District 11

Project Sponsor's Name and Address:

Los Angeles Department of Water and Power
Water Engineering and Technical Services
Project Planning and Development
111 North Hope Street, Room 1348
Los Angeles, CA 90012

General Plan Designation:

The project is a public facility that is on a site officially designated as open space in the Brentwood-Pacific Palisades Community Plan (the applicable community plan in the City of Los Angeles General Plan).

Description of Project:

The Los Angeles Department of Water and Power (LADWP) is proposing to install a synthetic (e.g., polypropylene or hypalon) floating cover over the existing Santa Ynez Reservoir located at 1351 Palisades Drive in the Pacific Palisades area of the City of Los Angeles. The existing reservoir has an approximate surface area of 9.2 acres and is located on a 57.9-acre site. The proposed project is being undertaken to comply with new United States Environmental Protection Agency (USEPA) standards governing surface water quality and disinfection byproducts.

Surrounding Land Uses and Setting:

The proposed project is immediately surrounded by recreation/open space uses, while residential and limited commercial uses occur in the vicinity to the north and east of the project site.

Agencies that may have an interest in the proposed project:

- Federal/California Occupational Safety and Health Administration
- California Department of Transportation
- City of Los Angeles Department of Transportation
- Los Angeles Regional Water Quality Control Board
- California Department of Health Services
- California Division of Safety of Dams
- Los Angeles Department of City Planning
- Los Angeles Department of Building and Safety

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the Environmental Impacts discussion in Section 3.0.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that the proposed project may have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Charles C. Holloway — Signature

10/23/03 — Date

Charles Holloway
Supervisor of Environmental Assessment
Los Angeles Department of Water and Power

SECTION 2.0

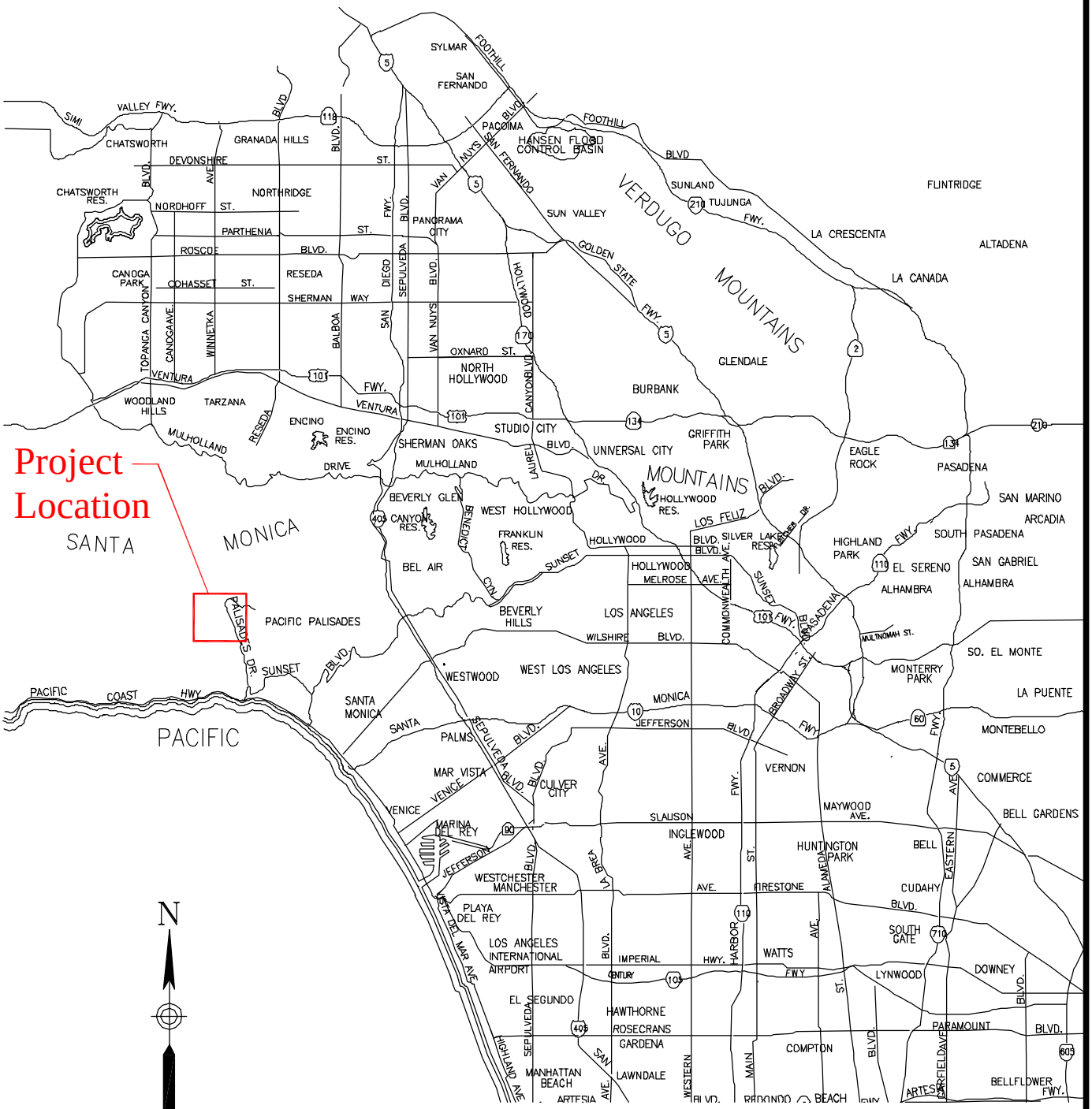
PROJECT DESCRIPTION

2.1 Project Location

In order to meet new United States Environmental Protection Agency (USEPA) standards governing uncovered finished water reservoirs and disinfection by-products, the Los Angeles Department of Water and Power (LADWP) is proposing to cover the existing Santa Ynez Reservoir. The reservoir is located at 1351 Palisades Drive in the Pacific Palisades Community of the City of Los Angeles. The reservoir has an approximate surface area of 9.2 acres located within an approximately 57.9 acre parcel owned and managed by LADWP (See Figure 1, *Project Vicinity Map*). The project area is roughly bounded by Topanga State Park to the north, Topanga Canyon Boulevard (State Highway 27) to the east, Pacific Coast Highway (State Highway 1) to the south, and Tuna Canyon Road to the west. The existing reservoir is located at an elevation of about 730 feet above sea level and is approximately two miles north of the Pacific Ocean. Construction activities would occur entirely within the boundaries of the reservoir property.

2.2 General Setting

The Santa Ynez Reservoir provides water storage for the Pacific Palisades community of the City of Los Angeles (See Figure 2, *Reservoir Service Area Map*). The reservoir is located within a semi-urbanized canyon area in the City of Los Angeles. Land uses in the vicinity of the proposed project are predominantly recreation/open space (i.e., local and state parklands), with residential (single- and multi-family) and limited small-scale commercial uses occurring to the north and east of the site (See Figure 3, *Project Location Map*).



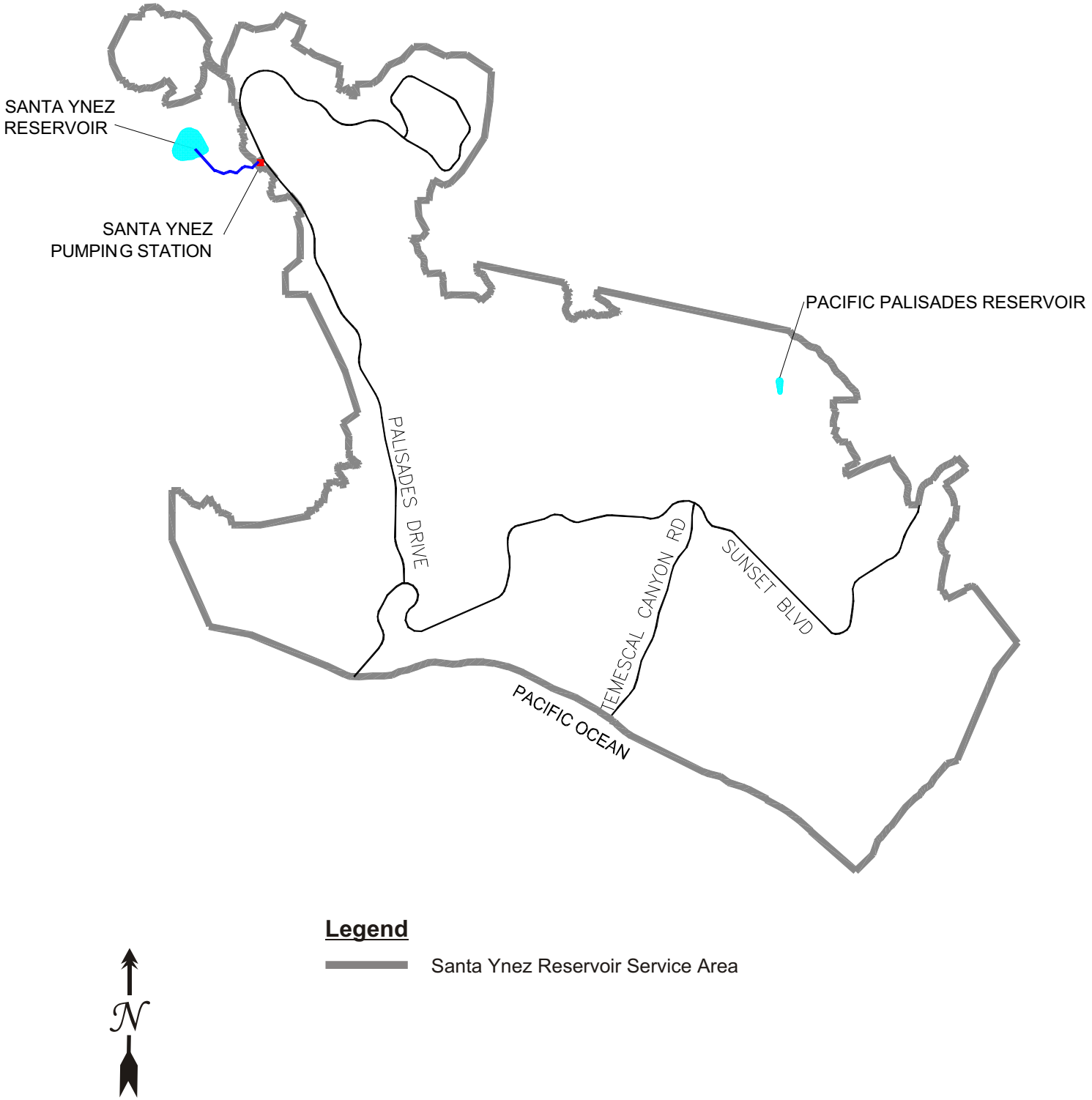
LOS ANGELES DEPARTMENT OF WATER AND POWER
SANTA YNEZ RESERVOIR WATER QUALITY IMPROVEMENT PROJECT

Project Vicinity Map

CDM

Figure 1

DATE: Sep 04, 2003 2:17pm XREFS:
DWG: P:\3031\Santa Ynez Reservoir IS-MND 2003\0_cad\Fig 2-1.dwg USER: schellerka



Source: City of Los Angeles Department of Water and Power

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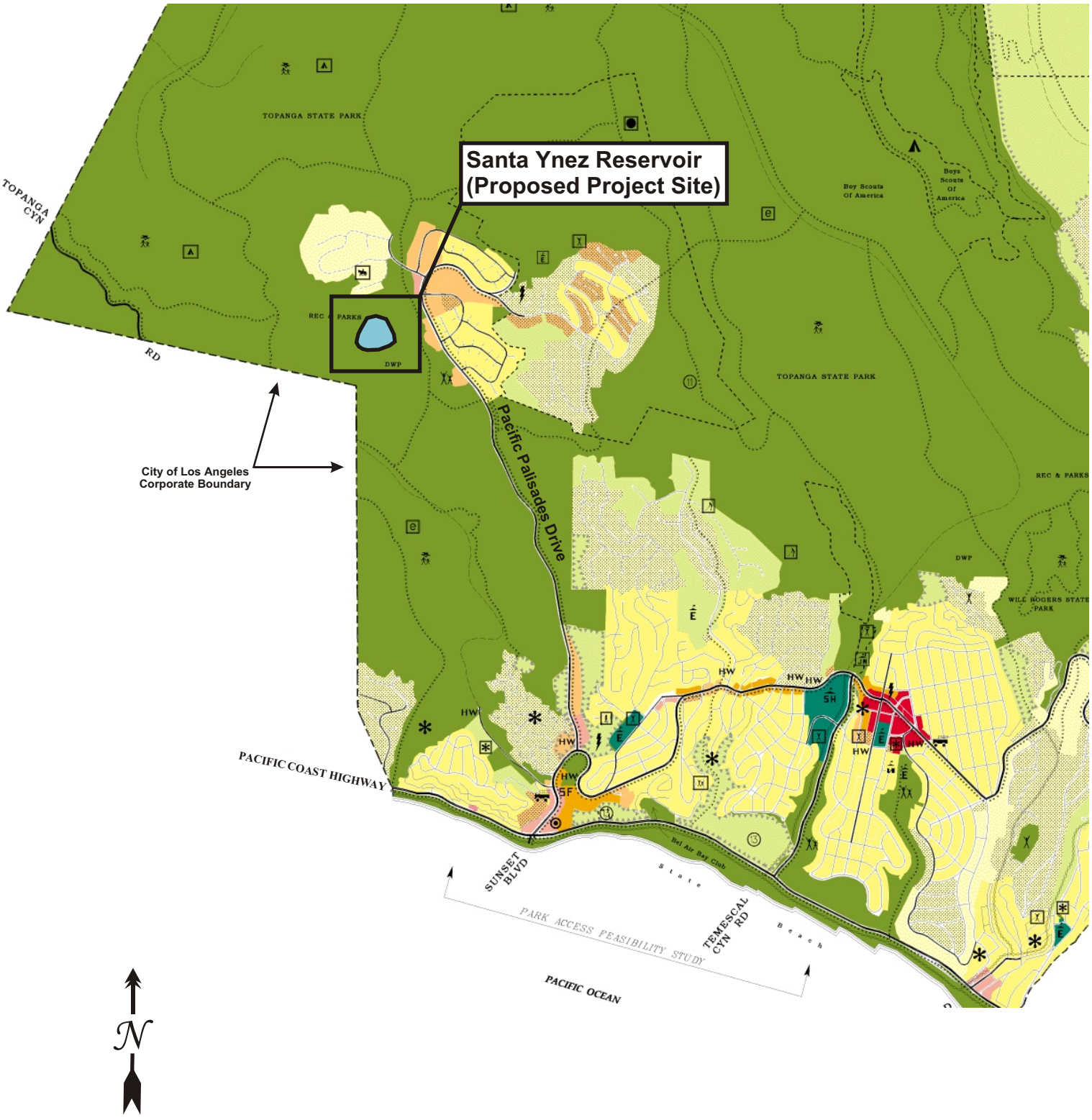
LOS ANGELES DEPARTMENT OF WATER AND POWER
SANTA YNEZ RESERVOIR WATER QUALITY IMPROVEMENT PROJECT

Santa Ynez Reservoir Service Area

CDM

Figure 2



Source: City of Los Angeles Department of City Planning. Brentwood-Pacific Palisades Community Plan. Revised June 17, 1998

Scale: 0.5 mi =

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LOS ANGELES DEPARTMENT OF WATER AND POWER
SANTA YNEZ RESERVOIR WATER QUALITY IMPROVEMENT PROJECT

Project Location Map

CDM

Figure 3

2.3 Project Objectives

The objectives of the Santa Ynez Reservoir Water Quality Improvement Project are as follows:

- To comply with the Stage 2 Disinfection By-Products Rule (S2DBPR) and the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) that have been proposed by the United States Environmental Protection Agency and governed by the California Department of Health Services.
- To improve the quality of the drinking water supply for the Pacific Palisades area.
- To protect the storage against water quality degradation.
- To improve security of the stored water from vandalism and potential terrorism.

The proposed reservoir cover is necessary for the Department to convert the disinfection of the water supply from chorine to chloramine. The conversion will enable the Department to comply with the S2DBPR standards for trihalomethanes (THMs) and halo acetic acids (HAAs). The proposed project will improve the drinking water quality for the Pacific Palisades area by reducing THM and HAA levels up to 40%. The LT2ESWTR also requires that uncovered finished water reservoirs be covered. In addition, the proposed cover will provide protection against water quality degradation that results from: birds, windblown debris, and algae growth caused by direct exposure to sunlight.

2.4 Project Description

The LADWP is proposing to install a floating cover over the existing Santa Ynez Reservoir, located at 1351 Palisades Drive in the Pacific Palisades community of the City of Los Angeles. Cover installation would also involve removal of the outlet tower and modifications to the reservoir internal piping system.

2.5 Construction Methods

In order to install the proposed floating cover, the reservoir would need to be temporarily drained of all water. To achieve this, the reservoir water level would first be drawn down by normal consumption through the drinking water distribution system. Once the water level in the reservoir reaches an elevation of 700 feet (from a maximum operating level of 721 feet), the remaining water would be gradually pumped to the existing storm water spillway located to the south of the reservoir. The spillway feeds an unnamed intermittent riprap drainage channel that flows southeasterly to an existing checkdam located in Santa Ynez Park.

Construction activities would require the staging of materials. Materials would be staged on existing paved or graded areas in the reservoir property. The majority of construction activities would take place within the existing reservoir basin. The banks and bottom of the reservoir are currently stabilized with asphaltic cement.

Prior to the placement of any cover, the existing outlet tower would be removed, a new inlet/outlet structure would be installed in the bottom of the reservoir, the bottom and side slopes would be repaved with asphaltic cement, and a new anchor curb would be constructed. The anchor curb would likely be constructed during the modifications to the inlet and outlet structure.

Cover material would consist of 45-millimeter reinforced polypropylene or hypalon sheeting. Material would be approved for contact with water (e.g., NSF 61[1]). The material would be transported to the site in rolls, with each panel size approximately 30 feet by 325 feet in size. Panels would be placed side-by-side and heat-sealed at the seams. In order to accommodate the typical rise and fall of the reservoir from use and refilling, a system of floats, sand tubes, drains, and pumps would be installed throughout the cover to collect rainwater so that it may be pumped away.

2.6 Construction Schedule

If approved, the construction of the proposed project is anticipated to commence in August 2005 and take approximately 12 months to complete. Just prior to construction, the reservoir would be drained of water as described above. This process (as described in Section 2.5, above) would take approximately two to four weeks.

2.7 Land Use Consistency

Construction and operation of the proposed project would be consistent with existing land use of the site. No change to existing land use is proposed as part of this project.

2.8 Environmental Setting

As mentioned previously, the areas near the proposed project to the north and east are characterized by suburban development. There are limited sensitive natural resources in the proximity to the proposed project (i.e., at the existing reservoir site), and various sensitive receptors (e.g., residences) exist in proximity to the proposed project to the north and east. The site is surrounded by open space/public parkland (e.g., Santa Ynez Canyon Park to the east/southeast and Topanga State Park around the remainder of the perimeter).

2.9 Environmental Safeguards

To avoid potential impacts to cultural resources and traffic, construction of the proposed project would be conducted in accordance with the Standard Specifications for Public Works Construction (Greenbook). Potential traffic impacts would also be avoided by conducting construction in accordance with the City of Los Angeles Work Area Traffic Control Handbook (WATCH) and traffic control plans approved by the City of Los Angeles Department of Transportation, to maintain acceptable levels of service, traffic safety, and emergency access for the site during construction. To minimize potential

[1] NSF 61 is a standard under American Materials Testing which addresses and evaluates crucial aspects of drinking water system components, materials and products. When a material is certified under Standard 61, it's certification indicates use restrictions on parameters (such as maximum use temperature) that assures that products used in drinking water systems meet all requirements. For additional information, go to www.wrcnsf.com/NSF61.htm.

impacts to biological resources, construction activity and staging would be limited to disturbed areas.

2.10 Required Permits and Approvals

Permits and/or necessary approvals may be required from the following agencies for the activities described:

- City of Los Angeles, Department of Transportation – approval for traffic/transportation-related issues during construction;
- California Department of Health Services – approval of maintenance plan for cover;
- Los Angeles Regional Water Quality Control Board – permit for general construction runoff and/or construction dewatering discharges under the National Pollutant Discharge Elimination System (NPDES);
- City of Los Angeles Department of City Planning – Conditional Use Permit;
- State of California Division of Safety of Dams – approval of landscaping associated with the reservoir.

SECTION 3.0

DISCUSSION OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

INTRODUCTION

The following discussion addresses impacts to various environmental resources, per the Initial Study Checklist questions contained in Appendix G of the State CEQA Guidelines. In some instances, one response addresses two or more checklist questions.

I. AESTHETICS

The following analysis is based on the anticipated changes to the visual character of the project site and the impacts to affected views of the reservoir from locations within the surrounding community. The images included in Appendix A and the following analysis (both photos and architectural renderings) are intended to illustrate the existing environment and the changes in visual character expected to result from implementation of the proposed project. However, due to natural variability in what is observed by different individuals, perspectives from different locations in the surrounding community, and the limitations in available photographic and reproduction technology, these images may not provide an exact depiction of what would be observed by every individual. The images should, however, provide sufficient information with regard to the degree of the proposed project's visual impacts on the surrounding community.

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact. The site is comprised of an open potable water storage reservoir and appurtenant facilities surrounded by recreational open space/parkland; it is not identified as part of a designated scenic vista in the City of Los Angeles General Plan. No impacts to scenic vistas are anticipated and no mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The project site is located approximately 800 feet west of Palisades Drive, which is designated as a scenic highway in the Transportation Element of the City of Los Angeles General Plan, but is not, however, designated as a California State Scenic Highway. The reservoir is not visible for most of the length of Palisades Drive but is visible from a few

intermittent locations along Palisades Drive in the residential community of the Pacific Highlands. Photos were taken of the existing reservoir site from various points along Palisades Drive (see Appendix A for the photos and location of these points in relation to the reservoir). Views of the reservoir from Palisades Drive are generally obstructed by residential homes and landscaping. From those vantage points where the reservoir is not obstructed by other features, views of the reservoir area are limited by the perspective, or angle of view, from the roadway. Given the limited views available of the reservoir from Palisades Drive, the degree to which the proposed floating cover would modify views of the reservoir from the roadway would be limited, and is therefore not considered significant.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Potentially Significant Unless Mitigation Incorporation. According to the City of Los Angeles Draft CEQA Thresholds Guide, the determination of significance of aesthetic (obstruction of views) impacts shall be made on a case-by case basis, considering the following factors:

- The nature and quality of recognized or valued views (such as natural topography, settings, man-made or natural features of visual interest, and resources such as mountains or the ocean);
- Whether the project affects views from a designated scenic highway, corridor, or parkway;
- The extent of the obstruction (e.g., total blockage, partial interruption, or minor diminishment); and
- The extent to which the project affects recognized views available from a length of a public roadway, bike path, or trail, as opposed to a single, fixed vantage point.

The proposed project would involve the installation of a synthetic floating cover (e.g., hypalon or polypropylene) over an existing open potable water storage reservoir within the boundaries of the existing reservoir property. The project site is located within a canyon area in the Pacific Palisades community of the City of Los Angeles. The reservoir is a manmade urban feature of visual interest surrounded by natural features, including on-site landscaping and surrounding open space/parkland, which is characterized by mountainous topography and canyon areas. The existing reservoir is a contrasting feature within the property boundaries and the surrounding landscape. The reservoir does, however, provide a surface water feature to the local landscape. Figure 4 illustrates one of the more prominent views of the existing reservoir taken from a residence in the Pacific Highlands. Additional photos taken from various points in the surrounding areas are included in Appendix A. Aesthetic values, especially in areas where natural and manmade features coexist, are highly subjective. As such, the

Figure 4: View from 17164 Avenida de la Herradura facing westward (photo date 1/29/03). This perspective shows one of the most prominent views of the reservoir taken from the backyard of a residence within the Pacific Highlands. As such, it is utilized herein as the base image for the evaluation of visual impact and mitigation.

obstruction of this water feature with the proposed floating cover may be perceived by some individuals as a significant negative aesthetic impact.

As observed in Figure 4, those features on the property providing the greatest degree of contrast are the existing perimeter/approach road, helipad/parking area, exposed side slopes of the existing reservoir, and historic slide repair (to the right of the reservoir water body in Figure 4). At distances where relief or texture is not readily discernable, visual contrast is largely a function of color and reflectivity. In general, lighter colors are more reflective, but may be affected by shadows cast by surrounding relief.

The reservoir's surface water area is 9.2 acres. The total surface area of the reservoir including the side slopes is approximately 11.6 acres. However, as observed from the various view points shown in Appendix A and Figure 4, due to the oblique perspective of the reservoir from surrounding residences, the water surface represents a very small percentage of the actual visible portion of the reservoir, with the eastward facing side slope of the reservoir and the historic slide repair located to the north of the site providing the most visible features.

The floating cover is proposed to be installed such that it would also cover the side slopes of the reservoir. In so doing, a large portion of the existing contrast created by the reservoir side slopes with the surrounding environment would be removed (See Figure 5).

Figure 5: Visual rendering of reservoir with proposed floating cover. Cover would be installed with edges extending up side slopes of reservoir.

Mitigation Measures:

Given the current visual characteristics of the reservoir site, the proposed project would result in the visual loss of an existing water feature and a modification of the degree of contrast with the surrounding environment.

In order to reduce the impacts of the cover, the following mitigation measure shall be implemented in order to blend the cover into the surrounding environment and lessen the visual impact:

MM-1: *A landscape master plan shall be developed in coordination with a committee of local residents within the viewshed of the reservoir site. The landscape master plan will be implemented in conjunction with the project and shall include the following features: (1) The proposed cover shall be of a color and/or pattern representative of the surrounding landscape; (2) Surrounding paved areas (perimeter road, access road, helipad/parking area, and historic slide repair) shall be repaved/resurfaced with a color/pattern representative of the surrounding landscape. Vegetative plantings may also be incorporated to further blend the site into the surrounding landscape; however, such*

plantings must be composed of species native to the area and comply with the requirements of the California Division of Safety of Dams.

Figure 6: Proposed floating cover with mottling pattern and colored perimeter/approach roads and repaved helipad/parking area.

Figure 6, illustrates the proposed floating cover with the incorporation of a camouflage or mottling pattern in colors that would visually mimic the surrounding natural landscape, thus minimizing the visual contrast of the reservoir cover with the surrounding environment. Even though the proposed floating cover would extend over the side slopes of the reservoir, it would still contrast with the immediate surrounding area (e.g., perimeter road, historic slide repair). In order to further blend the proposed floating cover with the surrounding natural environment, improvements to the surrounding paved areas would be necessary (i.e., perimeter road, helipad/parking area, access road, and historic slide repair). Not only would this serve to blend the proposed cover into the surrounding landscape, but it would lessen the degree of contrast at the existing site. Figure 6 illustrates the proposed floating cover with the proposed additional paving improvements. As observed in Figure 6, by incorporating a camouflage/mottling pattern and repaving the approach road, helipad/parking area, perimeter road, and the historic slide repair areas with a darker color, it would serve to further blend the proposed floating cover into its surroundings.

Due to the aesthetic value of the existing reservoir water feature from views within the surrounding community, the extent of the obstruction of the water feature, and the effects on recognized views from Pacific Palisades Drive (a City of Los Angeles designated scenic highway) from implementation of the proposed project, the installation of the proposed floating cover could result in some aesthetic impacts to the surrounding community. However, with the implementation of aforementioned landscape master plan with the specified mitigation measures, the visual impacts of the proposed project would not substantially degrade the existing visual character or quality of the site and its surrounds and therefore the potential impacts would be reduced to a less than significant level.

d) Create new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Nighttime construction activities would not be required for the installation of the proposed cover nor would additional lighting be necessary after installation. The water within the existing reservoir has reflective properties surrounded by paved areas (perimeter road, helipad/parking area, access road, and historic slide repair). Covering of the reservoir would result in an anticipated decrease in the existing reflectivity/glare qualities of the site. However, with the implementation of the mitigation measures outlined in item c) above, this potential effect is not considered to be significant, and no additional mitigation is required.

II. AGRICULTURE RESOURCES

Would the project:

a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

See item c) below.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

See item c) below.

c) Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use?

No Impact. The proposed project is located at an existing LADWP reservoir facility and is immediately surrounded by open space/recreation uses, while single- and multi-family residences and various commercial uses occur at distances of over 600 feet from the site to the north and east. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance

(Farmland) on, or in the vicinity of, the proposed project; therefore, there would be no potential for the construction or operation of the proposed project to convert farmland, either directly or indirectly, to non-agricultural use. No piece of land in the surrounding vicinity is zoned for agricultural uses or enrolled in a Williamson Act contract. No impacts are expected and no mitigation is required.

III. AIR QUALITY

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan (e.g., the SCAQMD Plan or Congestion Management Plan)?

No Impact. Within the project area, the South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG) have responsibility for preparing an Air Quality Management Plan (AQMP)[2], which addresses federal and state Clean Air Act requirements. The AQMP details goals, policies, and programs for improving air quality and establishes thresholds for daily operation emissions. The construction and operation of the proposed project is being undertaken to help LADWP comply with new USEPA standards governing water disinfection byproducts. The implementation of the proposed project would not affect population, housing units, or employment, and would thus be consistent with SCAG's Growth Management Plan. The proposed project would not have an impact on the type, size, or location of transportation infrastructure in the long-term, and would thus be consistent with SCAG's Regional Mobility Plan. The construction and operation of the proposed project are not anticipated to exceed the AQMP's daily emissions thresholds (as discussed in item c) below), and would therefore not conflict with or obstruct implementation of the AQMP. There are no Los Angeles County Metropolitan Transportation Authority (MTA) Congestion Management Plan (CMP) arterial corridors or intersections adjacent to the project site. No such arteries, intersections, or freeway onramps or offramps would be permanently affected by construction activities or by operation of the proposed project (see Section XV, Transportation/Traffic, on page 3-41 for further discussion of the CMP and related traffic issues). As such, no impacts to the local or regional air quality or congestion management plans would occur, and no mitigation is required.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

See item c) below.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an

[2] The AQMP is developed using SCAG population data, as included in SCAG's Growth Management Plan (GMP) and Regional Mobility Plan (RMP). The AQMP estimates regional air pollutant emissions based on per capita emissions, as determined by historic AQMD air monitoring data. Inasmuch as SCAG population growth data is used to develop the AQMP, GMP, and RMP, SCAG and AQMD base regional traffic, as associated air quality, conditions on per capita impacts.

applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact. The proposed project is located in the Los Angeles County sub-area of the South Coast Air Basin (Basin). Los Angeles County is designated as a "non-attainment" area for ozone (O_3), particulate matter with an aerodynamic diameter of less than 10 microns (PM_{10}), carbon monoxide (CO) and a "maintenance" area for oxides of nitrogen (NO_x), which denotes that it had once been a non-attainment area for the pollutant. The SCAQMD, the regional agency that regulates stationary sources, maintains an extensive air quality monitoring network to measure criteria pollutant concentrations throughout the Basin. The closest air monitoring station to the project site is the West Los Angeles – VA Hospital Monitoring Station, located at 11301 Wilshire Boulevard in the City of Los Angeles. This monitoring station is approximately 6 miles from the proposed project, the data from which is most representative of the air quality conditions at the project site. A summary of the air quality data from this monitoring station is summarized below in Table 1.

State and federal agencies have set ambient air quality standards for various pollutants. Both California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) have been established to protect the public health and welfare (See Table 2). The SCAQMD has prepared the *CEQA Air Quality Handbook* to provide guidance to those who analyze the air quality impacts of proposed projects. Based on Section 182(e) of the Federal Clean Air Act, the SCAQMD has set significance thresholds for five criteria pollutants. The SCAQMD significance threshold criteria are shown in Table 3.

Table 1
Ambient Air Quality Monitoring Summary,
West Los Angeles – VA Hospital Monitoring Station 1999-2001

Pollutant/Standard	Number of Days Threshold Were Exceeded at Monitoring Station and Maximum Levels During Such Violations		
	1999	**2000**	**2001**
Ozone			
State 1-Hour ≥ 0.09 ppm	4	2	1
Federal 1-Hour > 0.12 ppm	0	0	0
Federal 8-Hour > 0.08 ppm	0	0	0
Max. 1-Hour Conc. (ppm)	0.12	0.10	0.01
Max. 8-Hour Conc. (ppm)	0.08	0.08	0.08
Carbon Monoxide			
State 1-Hour > 20 ppm	0	0	0
State 8-Hour > 9.0 ppm	0	0	0
Federal 8-Hour > 9.5 ppm	0	0	0
Max 1-Hour Conc. (ppm)	6	6	4
Max. 8-Hour Conc. (ppm)	3.8	4.3	3.0
Nitrogen Dioxide			
State 1-Hour > 0.25 ppm	0	0	0
Max. 1-Hour Conc. (ppm)	0.13	0.16	0.11
Sulfur Dioxide			
State 1-Hour > 0.25 ppm	NM	NM	NM
Max. 1-Hour Conc. (ppm)	NM	NM	NM
Inhalable Particulates (PM_{10}) [2]			
State 24-Hour > 50 µg/m^3	NM	NM	NM
Federal 24-Hour > 150 µg/m^3	NM	NM	NM
Max. 24-Hour Conc. (µg/m^3)	NM	NM	NM

ppm = parts per million
µg/m^3 = micrograms per cubic meter
NM = Not Measured
[1] Less than 12 full months of data and may not be representative.
[2] Percent of samples exceeding standard.

Source: South Coast Air Quality Management District, Current Air Quality Trends (Tables). http://www.aqmd.gov/smog

Table 2
State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone (O_3)	8-Hour	N/A	0.08 ppm (157 µg/m^3)	Same as Primary
	1-Hour	0.09 ppm (180 µg/m^3)	0.12 ppm (235 µg/m^3)	Same as Primary
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	N/A
	1-Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	N/A
Nitrogen Dioxide (NO_2)	Annual	N/A	0.053 ppm (100 µg/m^3)	Same as Primary
	1-Hour	0.25 ppm (470 µg/m^3)	N/A	N/A
Sulfur Dioxide (SO_2)	Annual	N/A	0.030 ppm (80 µg/m^3)	N/A
	24-Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	N/A
	3-Hour	N/A	N/A	0.5 ppm (1300 µg/m^3)
	1-Hour	0.25 ppm (655 µg/m^3)	N/A	N/A
Particulate Matter (PM_{10})	AAM	30 µg/m^3 *	50 µg/m^3	Same as Primary
	24-Hour	50 µg/m^3 *	150 µg/m^3	Same as Primary
Particulate Matter ($PM_{2.5}$)	AAM	N/A*	15 µg/m^3	Same as Primary
	24-Hour	N/A*	65 µg/m^3	Same as Primary
Lead (Pb)	Quarterly	N/A	1.5 µg/m^3	Same as Primary
	Monthly	1.5 µg/m^3	N/A	N/A
Sulfates	24-Hour	25 µg/m^3	N/A	N/A

ppm = parts per million (by volume).
N/A = Not applicable.
µg/m^3 = micrograms per cubic meter.
mg/m^3 = milligrams per cubic meter.
AAM = Annual arithmetic mean.

* On June 20, 2002, the Air Resources Board approved staff's recommendation to revise the PM_{10} annual average standard to 20 µg/m^3 and to establish an annual average standard for $PM_{2.5}$ of 12 µg/m^3. These standards will take effect upon final approval by the Office of Administrative Law, which is expected in May 2003. Information regarding these revisions can be found at http://www.arb.ca.gov/research/aaqs/std-rs/std-rs.htm.

Source: California Air Resources Board, Ambient Air Quality Standards (California and Federal), Available: http://www.arb.ca.gov/aqs/aqs.htm [May 23, 2000].

Table 3
SCAQMD Air Quality Impact Significance Thresholds

Pollutant	Construction Phase		Operational Phase
	(lbs/day)	*(tons/quarter)*	*(lbs/day)*
Reactive Organic Compounds (ROCs)	75	2.50	55
Carbon Monoxide (CO)	550	24.75	550
Nitrogen Oxides (NO_x)	100	2.50	55
Sulfur Oxides (SO_x)	150	6.75	150
Particulates (PM_{10})	150	6.75	150

Source: SCAQMD, CEQA Air Quality Handbook, 1993

Construction Emissions

The air quality impacts of construction and operations were evaluated using methods recommended in the latest SCAQMD *CEQA Air Quality Handbook* (April 1993). This analysis also used emission factors from the California Air Resources Board EMFAC 2001 model for mobile source emissions (construction worker commute vehicles and haul truck trips). Construction equipment emissions factors were obtained from Table A9-8-A and A9-8-B of the SCAQMD *CEQA Air Quality Handbook*. Refer to Appendix B for emissions and load factors, assumptions, and calculations.

Air contaminant emissions would result from the use of construction equipment and construction worker vehicles. Site preparation activities would primarily consist of operation of one excavator, one water truck, two dump trucks, one loader, one backhoe, one compactor, two concrete trucks, one paver, one welder's truck, three pickup trucks, one utility truck, and several (24 assumed) construction worker vehicles that would be traveling to and from the proposed project site from the nearest LADWP facility. On a typical workday, workers would travel directly to the construction site. Additionally, diesel emissions would result from truck trips associated with supply delivery (including pipeline sections and/or concrete), transport of excavated soil from trenching (soil would be transported to the closest appropriate LADWP facility, as is standard LADWP practice, for reuse or ultimate disposal), and transport of backfill and paving materials to the site. It is assumed that such truck operations would require 6 trucks to travel 40 miles per day, or an equivalent mix of trucks and trips, to a maximum of 240 miles per day.

The air quality emissions calculations assume 24 employees would drive 40 miles round-trip each day. Under these assumptions, air emissions from worker commutes would not exceed SCAQMD significance threshold criteria. This is due to the fact that these emissions would represent very small

percentages of the total emissions projected to result from construction activities, with the exception of CO and ROC's. Worker commute emissions for these pollutants would be 27.6 lbs/day of CO (30.3% of total CO daily construction emissions) and 2.2 lbs/day of ROC (18.4% of total daily ROC construction emissions). Haul trips associated with soil transport, paving material transport (concrete), and equipment deliveries would result in a relatively small increase in criteria pollutant emissions for mobile equipment, with the exception of NO_x. Haul trip emissions for NO_x would be 8.2 lbs/day (8.6% of the total daily NO_x construction emissions). See Table 4 for daily construction (stationary activities, truck trips, and worker commutes) emissions totals.

Construction activities are not anticipated to generate significant amounts of PM_{10}. The estimated emissions in Table 4 for PM_{10} include dust from site preparation activities and from on-site gasoline and diesel construction equipment. The dust generation factor used (assuming worst-case environmental conditions) is 0.42 tons per acre-month, which is the most recently approved and recommend factor by the SCAQMD for the quantification of dust generation from exposed soils[3]. It is estimated that the construction activities would emit a maximum of approximately 129.2 pounds per day of PM_{10} resulting from dust generation under worst-case conditions, assuming 4 acres of exposed soil at any given time on-site. This represents approximately 96.0% of the total PM_{10} emissions projected to result from construction activities, which is 134.6 pounds per day, including gasoline and diesel emissions (see Appendix B for detailed calculations). As indicated in Table 4, although dust generation accounts for a very large percentage of PM_{10} emissions, the daily emissions of this pollutant would be well below the SCAQMD significance threshold.

[3] Midwest Research Institute, Improvement of Specific Emission Factors (BACM Project No. 1) Final Report, for SCAQMD (for PM_{10} dust emissions), March 29, 1996.

Table 4
Estimated Air Emissions From Construction

Air Pollutant	Estimated Emissions (lbs/day)	SCAQMD Threshold (lbs/day)
Reactive Organic Compounds (ROCs)	11.9	75
Carbon Monoxide (CO)	91.2	550
Nitrogen Oxides (NO_x)	95.8	100
Sulfur Oxides (SO_x)	7.3	150
Particulates (PM_{10})	134.6*	150

Source: SCAQMD, *CEQA Air Quality Handbook*, April 1993; EMFAC2001.
Note: *Includes a worst-case dust generation factor of 0.42 tons/acre-month for PM_{10} during site preparation, based on SCAQMD's recommendations for conservative assessment.

As indicated in Table 4, all criteria pollutants would be below SCAQMD significance thresholds for construction activities. Furthermore, construction emissions would be short-term in nature, and would be limited only to the time period when construction activity is taking place. Additionally, the construction emissions analysis incorporated conservative assumptions. For example, all 24 workers were assumed to drive their own vehicle 40 miles round-trip each workday and worst-case conditions for fugitive dust generation were assumed (i.e., high wind conditions with minimal, if any, soil stabilization and a large exposed soil area of 4 acres). As such, construction emissions are not expected to add to long-term air quality degradation. Further, the proposed project would implement standard SCAQMD-approved construction procedures, such as those provided in Tables 11-2 and 11-3 of the *CEQA Air Quality Handbook* (for exhaust emissions), and comply with provisions of the most recently-adopted SCAQMD Rule 403 (Fugitive Dust), as applicable. With implementation of adopted SCAQMD Rules and procedures, construction-related emissions impacts would not be considered significant and no mitigation is required.

Operation Emissions

Operation of the proposed project would not generate any emissions of criteria pollutants, as the reservoir would continue to operate passively as a water storage facility, and water pumping activities, when necessary, would be carried out utilizing electric-powered pumps. As such, no operational air quality impacts would result from the proposed project and no mitigation is required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The proposed project is approximately 650 feet from the nearest sensitive receptors (namely single- and multi-family residences), which is located to the north and east. Since daily construction emissions would be below significance thresholds, and construction activities would occur at a minimum distance of approximately 650 feet from the closest sensitive receptors, impacts to nearby residents and/or employees from construction-related air emissions would be minimal and, therefore, less than significant. The operation of the proposed project would not result in a significant impact to sensitive receptors adjacent to the proposed project, due to the fact that operation of the proposed project would not generate vehicle trips or produce air emissions. No significant impacts are anticipated and no mitigation is required.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Any odors (e.g., odors from construction vehicle emissions) will be controlled in accordance with SCAQMD Rule 402 (Nuisance Emissions). Other than construction vehicle operation, no activities are anticipated to occur, and no materials or chemicals would be stored on-site, that would have the potential to cause odor impacts during the construction and operation of the proposed reservoir cover. Therefore, no significant odor impacts would occur and no mitigation is required.

IV. BIOLOGICAL RESOURCES

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The proposed project is located within the Santa Monica Mountains in the vicinity of the Pacific Palisades portion of the City of Los Angeles. Regular and periodic operation and maintenance activities since that time has maintained landscaped or ornamental vegetation within the reservoir property.

BonTerra Consulting conducted a search of available literature to identify special status plants, wildlife, and habitats known to occur in the vicinity of the proposed project by reviewing the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2003), *Federal Register* notices and final rules, a compendia of special status species published by the California Department of Fish and Game (CDFG), the California Natural Diversity Database (CNDDB, 2003) as well as other resources as appropriate.

This review provided current or historic records of 12 plant species and 8 animal species within the USGS quadrangle which the proposed project is located. None of the plant or animal species were identified within the USGS quadrangle as being within the facility boundary; therefore, these species are not expected to occur. For detailed information on the biological resources study for this project, see Appendix C. No substantial adverse direct or indirect effects from construction or operation of the proposed project are expected and no mitigation is required.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The literature search recorded the current or historic presence of 2 sensitive habitats (California walnut woodland and southern sycamore alder riparian woodland) within the project area. California walnut woodland was not observed, and is not expected to occur, within reservoir site boundaries or the immediate vicinity of the reservoir. Southern sycamore alder riparian woodland was observed within the Santa Ynez Canyon drainage, downstream from the reservoir; however, this habitat was not observed within, or proximal to, the reservoir site boundaries.

No substantial adverse direct or indirect effects from construction or operation of the proposed project are expected and no mitigation is required.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. No potential jurisdictional waters or wetlands were identified within the proposed project site. In addition, construction and operation in support of the proposed project are not expected to occur within the bed or bank of Santa Ynez Canyon drainage; therefore, no potential impacts to jurisdictional water or wetland habitat from the proposed reservoir improvements are anticipated and no mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery/breeding sites?

No Impact. Santa Ynez Canyon drainage likely provides some function and value as a wildlife movement corridor in the project area. Construction, as well as continued operation activities at the reservoir, would not be expected to interfere substantially with the movement of with any native resident or migratory fish or wildlife species, any established native resident or migratory wildlife corridors, or impede the use of any native wildlife nursery/breeding

site in the project area. No impacts are expected and no mitigation is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?

No Impact. It is anticipated that biological and other natural resources protected by local resource protection ordinances and policies within the site boundaries of Santa Ynez Canyon Reservoir have already been impacted or modified by the creation of the existing facility. It is anticipated that modifications to the reservoir would permit existing residential, commercial, and park/open space land uses within the project area to continue to be operated and maintained consistent with all local policies and ordinances protecting natural resources. The projects avoidance of natural areas would result in the expectation that no impact would occur; therefore, no mitigation would be required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. Species or habitats covered within any Habitat Conservation Plans, Critical Habitat Designations, Natural Community Conservation Plans, Significant Ecological Areas, or other approved conservation plans have not been identified within the proposed project footprint. Similarly, potential "take" or impacts to endangered, threatened, or other special status plants, animals or habitats, are not expected to occur with modifications to the reservoir. Any necessary staging areas are expected to be located within the existing reservoir facility. Since potential staging areas are expected to occur within portions of the reservoir site and would not support sensitive or special status species or their habitats; therefore, no impacts to sensitive biological resources are anticipated. Similarly, reservoir modifications restricted to the existing reservoir facility would not impact species or habitats located within an area affected by or subject to an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact is anticipated and no mitigation is required.

V. CULTURAL RESOURCES

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5?

No Impact. The proposed project would involve the installation of a floating cover over an existing open potable water storage reservoir. The existing reservoir was constructed and placed into operation in 1970, and does not meet any of the criteria of a historic resource as defined in California Code of

Regulations Section 15064.5. A records search conducted by the South Central Coastal Information Center in August 2003 included a search of the Historic Property Data File, maintained by the State Office of Historic Preservation. The data file search showed that no historic resources have been evaluated within a one-mile radius of the reservoir and no properties within a one-mile radius are listed or have been determined eligible for the California Register of Historical Resources nor the National Register of Historic Places. In addition, no historical resources are listed as a California Point of Historical Interest, California Historical Landmark, or City of Los Angeles Historic-Cultural Monument. Therefore, construction of the proposed project is not expected to cause a substantial adverse change in the significance of a historical resource (buildings or structures that are eligible for the National Register of Historic Places or the California Register of Historical Resources). Therefore, no impacts to historical resources are expected and no mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations Section 15064.5?

Less Than Significant Impact. The proposed project would involve the installation of a floating cover over an existing open potable water storage reservoir. A records search performed by the South Central Coastal Information Center of the California Historical Resources Information System showed that the reservoir property was previously surveyed for archaeological resources in 1990 and that no archaeological resources were identified as a result of the survey. Nine prehistoric archaeological sites have been recorded within a one-mile radius of the proposed project, but the closest of these is over 3/8 of a mile away. Ground disturbing construction impacts will be minimal, if any, and will consist of using an already graded area around the reservoir as an equipment staging area. In the unlikely event that archaeological resources are encountered during construction, the Standard Specifications for Public Works Construction (Greenbook) requires that construction in the area of discovery of an archaeological (or paleontological) resource be suspended until appropriate action can be taken. Therefore, adherence to the Greenbook would reduce the potential impact to a less-than-significant level and no mitigation is required.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. The proposed project would involve the installation of a floating cover over an existing open potable water storage reservoir. Although the proposed project is located in an area underlain by the Sespe Formation which has yielded important vertebrate fossils from the late Eocene and early Oligocene Epochs (see Appendix D for additional

information), ground disturbing construction impacts will be minimal, if any, and will consist of using an already graded area around the reservoir as an equipment staging area. In the unlikely event that paleontologic resources are encountered during construction, the Greenbook requires that construction in the area of discovery of an archaeological or paleontological resource be suspended until appropriate action can be taken. Therefore, adherence to the Greenbook would reduce the potential impact to a less-than-significant level and no mitigation is required.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. The proposed project would not impact known cemeteries, and no evidence of burials exists in the project location. If burials are encountered, the County Coroner will be notified, as required by the Greenbook and state law. The possibility of encountering archaeological artifacts or burials in the project area is low; and adherence to the Greenbook would minimize potential impacts to a less-than-significant level and no mitigation is required.

VI. GEOLOGY AND SOILS

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The proposed project is not located within the boundaries of any state designated Alquist-Priolo Special Studies Zone.[4] The construction and operation of the proposed project would therefore not expose people or structures to potential adverse effects from the rupture of a known earthquake fault and no mitigation is required.

ii) Strong seismic ground shaking?

Less Than Significant Impact. Seismic activity at area faults may result in groundshaking at the proposed project site. Seismic hazard from groundshaking is typical for many areas of Southern California. At the proposed project site, the potential for seismic activity would not be greater than for much of Los Angeles. Geotechnical investigations for the existing reservoir concluded that the site was safe for dam construction, and the construction of the facility incorporated the recommendations of

[4] City of Los Angeles, *General Plan, Safety Element Exhibit A,* "Alquist-Priolo Special Studies and Fault Rupture Areas."

the geology report and addenda. [5,6] Construction of the proposed project would be in compliance with earthquake-resistant standards required by the LADWP Engineering Standards Manual. Although failure of the proposed reservoir structures is not anticipated, given adherence to applicable design and engineering standards, if damage to the facility were to occur as a result of seismic activity, local populations are located up-gradient across steep canyons and thus would not be put at risk by such damage. Therefore, the proposed project is not expected to increase the risk of exposure of people or structures to impacts from strong seismic ground shaking and no mitigation is required.

iii) Seismic-related ground failure, including liquefaction?

No Impact. Depending on the levels of ground shaking, groundwater conditions, the relative density of soils, and the age of the geologic units in the area, the potential for liquefaction may vary in the City of Los Angeles. Seismic-related ground failure, including liquefaction, occurs when a saturated, granular deposit of low relative density is subject to extreme shaking and loses strength or stiffness due to increased pore water pressure. The consequences of liquefaction are expected to be predominantly characterized by settlement or uplift of structures, and increase in lateral pressure on buried structures. The proposed project site is not located in an area susceptible to liquefaction.[7] Nonetheless, trenches and other excavations would be backfilled with engineered fill, which meets compaction and shear strength requirements, and has little, if any, liquefiable potential. Due to the fact that the proposed project site is not located in an area susceptible to liquefaction and backfilled material would be engineered to meet compaction and shear strength specifications, no impact to the reservoir, or to buried structures (i.e., inlet and outlet structure) from an increase in lateral pressure is anticipated. Therefore, no impacts are anticipated that would expose people or structures to risk of substantial adverse effects from liquefaction, and no mitigation is required.

iv) Landslides?

Less Than Significant Impact. According the City of Los Angeles General Plan Safety Element, the proposed project site is located in, or in proximity to, an area potentially susceptible to shallow surficial landslides (i.e., not characterized by deep bedrock sliding).[8] The closest observed potential landslide hazard area is a small shallow surficial landslide located approximately ¼-mile southwest of the existing facility, though this landslide was concluded not to present a substantial risk to the reservoir

[5] City of Los Angeles Department of Water and Power, *Proposed Santa Ynez Canyon Reservoir Site (Formerly Trailer Canyon West) Preliminary Geology Report*. January 3, 1963. Addendum #1, March 1, 1965. Addendum #2, June 1, 1967.
[6] City of Los Angeles Department of Water and Power, Water Engineering Design Division Inspection and Surveys Section, *Final Construction Report of Santa Ynez Canyon Reservoir 1966-1968*. April 1971.
[7] City of Los Angeles, *General Plan, Safety Element Exhibit B*, "Areas Susceptible to Liquefaction in the City of Los Angeles."
[8] City of Los Angeles, *General Plan, Safety Element Exhibit C,* "Landslide Inventory & Hillside Areas In the City of Los Angeles."

facility.[9] Nonetheless, the proposed project would be constructed on the existing open reservoir site, which was constructed to meet all applicable design and engineering standards for safety. The proposed reservoir cover and appurtenant structures would not increase risks to people or structures relative to landslides. Furthermore, the proposed project would also incorporate all applicable engineering and design standards. Given the nature of the proposed improvements (i.e., installation of a floating cover and inlet/outlet structure at the existing reservoir), the relative stability of the existing reservoir within which the improvements would be constructed, and the incorporation of proper engineering and design, impacts to the pipeline from landslides are anticipated to be less than significant and no mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The construction and operation of the proposed project would occur within and around an existing paved reservoir. The banks and bottom of the reservoir are currently stabilized with asphaltic cement and are not susceptible to wind or water erosion. However, modifications to the existing reservoir inlet/outlet structure to accommodate the floating cover and use of adjacent laydown areas may increase susceptibility to wind or water erosion from the stockpiling of excavated materials. Consequently, short-term erosion impacts could occur as a result of excavation from proposed project construction activities. These exposed soils could potentially cause erosion impacts during windy conditions and from construction vehicles traveling through the site. Heavy rains could cause the exposed soils to run off into public or private storm drainage systems. However, the contractor will develop and implement a plan to control erosion of soil from the site during construction utilizing Best Management Practices. Because the proposed project site has been previously excavated, and measures would be incorporated in non-paved areas (if any) to minimize soil erosion, significant losses of topsoil are not anticipated. The development and implementation of an erosion control plan would keep the temporary erosion impacts resulting from construction to less-than-significant levels. Operation of the proposed project would be passive and all on-site soils would be stabilized; therefore, no additional impact on soil erosion or loss of topsoil is expected and no mitigation is required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. The project site has been previously graded and developed with an open water reservoir, and is not located on a geologic unit or soil that is unstable. Lateral spreading, subsidence, and collapse are

[9] City of Los Angeles Department of Water and Power, *Proposed Santa Ynez Canyon Reservoir Site (Formerly Trailer Canyon West) Preliminary Geology Report*. January 3, 1963. Addendum #1, March 1, 1965. Addendum #2, June 1, 1967.

not expected to occur at the proposed project site, because the area was graded and constructed to proper engineering standards when the reservoir was originally constructed, and the proposed improvements would not affect the structural stability of the existing facility. Nonetheless, application of engineered backfill and adherence to applicable construction specifications would serve to avoid any potential for soil instability resulting from the proposed project. Therefore, construction and operation of the proposed project is not expected to cause the local geologic unit or soil to become unstable, or result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Impacts would be less than significant and no mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. The proposed project site is an existing open reservoir facility, which was designed and engineered to meet applicable building code and safety standards (i.e., to address potential dam failure), and construction and operation of the proposed improvements would occur exclusively within these previously disturbed areas. Alluvial soils can exhibit shrink-swell potential (as is characteristic of expansive soils) when exposed to moisture (e.g., groundwater, percolating surface runoff). As discussed in item a) above, the soils at and in the vicinity of the project site are not alluvial soils (i.e., they are not expansive soils). Nonetheless, the proposed project would be constructed to meet all applicable Uniform Building Code standards, and would be constructed using properly engineered fill. As such, no impacts are anticipated and no mitigation is required.

e) Have soils incapable of adequately supporting use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The project area does not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. Moreover, the proposed project would not affect or propose any use of septic tanks or alternative wastewater disposal systems. The project area is serviced by a sewer system operated and maintained by the City of Los Angeles, Department of Public Works. Construction and operation of the proposed project would not affect any existing, or hinder future, septic tanks or alternative wastewater disposal systems, or the soils that would adequately support those systems. Therefore, no impacts related to soil compatibility with septic systems would occur, and no mitigation is required.

VII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact. Construction of the proposed project is not anticipated to involve the routine or short-term transport, use, or disposal of hazardous materials. Operation of the proposed project would not require use, storage, or disposal of hazardous substances. In fact, the implementation of the proposed project would reduce the amount of chlorine injected, thereby reducing the existing use, storage, or disposal of a hazardous substance. Therefore, the proposed project would not create impacts related to the routine transport, use, or disposal of hazardous materials, and no mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Impact. Implementation of the proposed project would not involve the use, storage, or disposal of explosive or hazardous substances that could result in an upset and accident condition. Before commencing any excavation, the construction contractor would be required to obtain an "Underground Service Alert Identification Number". To minimize potential damage to any existing utilities, the contractor would not be allowed to excavate until all utility owners are notified, and all substructures are clearly identified. As the proposed project would continue to store potable water, operation would not create a significant hazard to the public or environment involving the release of hazardous materials. No reasonably foreseeable upset or accident conditions that could involve the release of hazardous materials into the environment are anticipated during construction or operation. Therefore, no impacts are anticipated and no mitigation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. As discussed in the Air Quality section (starting on page 3-7), operation of construction equipment creates air contaminant emissions. None of these emissions would be generated at levels that are considered hazardous. No schools exist within one-quarter mile of the proposed project site or in proximity to downstream areas (i.e., where water would flow in the event of a structural failure of the reservoir or its dams). Construction of the proposed project would also involve the excavation and transport of paving materials (e.g., asphaltic cement from the existing reservoir floor), and all such materials would be transported and disposed of in accordance with applicable codes and regulations. Such transport and disposal is not expected to involve acutely hazardous materials, substances, or waste. Operation of the proposed project would not involve hazardous emissions or materials. The proposed improvements would improve the function of the existing reservoir and would increase water quality of the City's potable water supply. If there were any emergency condition involving the proposed project, the result would involve the release of potable

water into adjacent unpopulated canyons; therefore, no impacts to schools are anticipated and no mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. Government Code Section 65962.5 refers to a list of facilities that may be subject to the Resource Conservation and Recovery Act (RCRA) corrective action program. The Santa Ynez Reservoir is not listed as a site on the RCRA Information System (RCRIS) online database.[10] The proposed project, which is a cover for an existing reservoir, would not create a significant hazard to the public or the environment relative to hazardous materials. No significant impacts are anticipated and no mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

See item f) below.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The proposed project is not located within an airport land use plan. The closest airport/airstrip to the proposed project site is the Santa Monica Airport (a public airport), located approximately 8 miles southeast of the proposed project site. As such, construction of the proposed project would not affect airport activities, and the project would not result in a safety hazard for people residing or working in the project area. Once operational, the proposed project would store potable water, which would not interfere with, nor be affected by, airport operations. Therefore, neither construction nor operation of the proposed project would impact on airport operations or pose a safety hazard and no mitigation is required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project would not impair or physically interfere with an adopted emergency response plan or a local, state, or federal agency's emergency evacuation plan. The on-site construction activities and delivery/haul operations would conform to all City of Los Angeles Department of Transportation (LADOT), Los Angeles Police Department (LAPD), and Los Angeles Fire Department (LAFD) access standards to allow adequate

[10] United States Environmental Protection Agency. *Envirofacts Data Warehouse, RCRAInfo Database*. Website: *http://www.epa.gov/enviro/html/rcris.* Accessed June 16, 2003.

emergency access. Once operational, the proposed project would store potable water at the existing reservoir facility, and its operation would not interfere with emergency response or evacuation plans. No impacts are expected and no mitigation is required.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact. According to the City of Los Angeles General Plan Safety Element, the proposed project site is located within a wildfire hazard area.[11] Although the proposed project site is located within a wildfire hazard area, construction of the proposed improvements would not substantially increase risks to people or structures from wildland fires, due to the localized and temporary nature of construction activities. During construction, the existing reservoir would be drained of all water, thus reducing the available supply of surface water for fighting fires (i.e., for use by firefighting helicopters) in the local area, which may potentially increase risks to people or structures from wildland fires. However, other surface water sources exist in the vicinity of the proposed project site (e.g., Pacific Palisades Reservoir [approximately 3 miles east of Santa Ynez Reservoir] and Santa Ynez Lake [approximately 2 miles south of Santa Ynez Reservoir]) that could be utilized for firefighting purposes in the event of a wildland fire during construction activities. Operation of the proposed project would occur passively at the existing reservoir facility with little, if any, potential to cause or exacerbate any wildland fires or their impacts to people or structures in the vicinity of the proposed project site. As such, construction and operation of the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Therefore, impacts would be less than significant and no mitigation is required.

VIII. HYDROLOGY AND WATER QUALITY

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. The purpose of the proposed Santa Ynez Reservoir Water Quality Improvement Project is comply with proposed USEPA water quality rules (see Section 2.3 on page 2-5), improve the quality of the drinking water supply for the Pacific Palisades area, and protect the storage against water quality degradation (as well as vandalism and potential terrorism); as such the proposed project would not result in violation of any water quality standards. The construction and operation of the proposed project would not generate any wastewater or increase urban runoff into existing storm drains that would be subject top waste discharge requirements. Prior to operation of the proposed inlet/outlet structure, they would be

[11] City of Los Angeles, *General Plan, Safety Element Exhibit D,* "Selected Wildfire Hazard Areas In the City of Los Angeles."

hydrostatically tested and disinfected with chlorine. Test and disinfectant water would then be treated pursuant to NPDES permit requirements by the Regional Water Quality Control Board and then discharged into the storm drain system via the existing on-site spillway. It is anticipated that dewatering will not be required for the construction of the proposed improvements due to the shallow depth at which subsurface structures would be placed and the elevation of the reservoir site (i.e., groundwater is typically encountered at lower elevations, such as along the canyon floors adjacent to the proposed project site). All water from dewatering activities would be tested and discharged in accordance with all applicable requirements of the Regional Water Quality Control Board. Therefore, no significant impacts to water quality from construction or operation are anticipated and no mitigation is required.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. During construction, the only groundwater that the proposed project has the potential to deplete would be from dewatering activities, if required. Though not expected, if any groundwater were to be encountered and dewatering required, dewatering would occur in such nominal quantities that would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The proposed project would serve to increase the safety and reliability of the existing LADWP water supply system, and would not contribute to the depletion of groundwater supplies, interfere substantially with groundwater recharge, or lower the level of the groundwater table. As such, no significant adverse impacts to groundwater supply or recharge are expected and no mitigation is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on-or off-site?

See item d) below.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

Less Than Significant Impact. The proposed project would be constructed under/within an existing potable water reservoir, and, as such, is not expected to alter the existing grade or drainage pattern of the area. The proposed

project would not permanently or temporarily alter the course of a stream or river. Construction activities are not expected to substantially increase the rate or amount of surface runoff, or result in flooding on- or off-site. Operation of the proposed project would occur passively within the existing reservoir site, and no impacts to drainage patterns or existing nearby streams are anticipated to occur. Therefore, impacts would be less than significant and no mitigation is required.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. As part of construction, the existing reservoir would be drained of all water, a small percentage of which would be pumped into the existing dam spillway that discharges to the local storm drain system. The volume of water discharged into the spillway and storm drain system at any given time during this process would not be large enough to exceed the capacity of existing storm drain infrastructure. The pumping activities would be monitored, and modified during storm events, in order to prevent exceeding, or exacerbate an exceedance, the capacity of the storm drain system. Also, though unlikely, dewatering that may be required for construction would contribute minimal amounts of discharge water; however, this water is not expected to be released in substantial quantities, and is not expected to exceed the existing or planned capacity of the local stormwater drainage system. Furthermore, as mentioned above, the discharge water is not anticipated to contain significant quantities of contaminants, and would be of limited volume. Once the construction of the proposed project has been completed, the inlet/outlet structure would be hydrostatically tested and disinfected. Test and disinfection water would be treated, as necessary, pursuant to Regional Water Quality Control Board requirements and discharged into the storm drain system. Rainwater collected from the surface of the reservoir cover and water used in cover maintenance activities (as required by California Department of Health Services) would be collected, tested and discharged pursuant to Regional Water Quality Control Board requirements. Operation of the proposed project would not be expected to create or contribute runoff water in an amount which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted water. Consequently, impacts to stormwater systems from increased runoff volumes or polluted runoff due to construction or operation of the proposed project would be less than significant and no mitigation is required.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. Potential short-term erosion effects could occur during excavation and construction activities, which could affect surface water quality. However, due to the localized nature of the proposed project and limited area of ground disturbance within an existing reservoir facility, this

effect is expected to be minimal. If dewatering is necessary during construction, the water would be treated, as necessary, and discharged into the nearby storm drain system. Operation of the proposed improvements would be a closed system and therefore not substantially degrade or affect water quality. In fact, the main objective of the proposed project is to comply with the latest USEPA drinking water quality standards. USEPA has set maximum contaminant levels (MCLs) for two groups of disinfection byproducts (total trihalomethanes [TTHMs] and haloacetic acids [HAAs]), as well as others in drinking water. The MCL standard is typically set at a one in a million (1/1,000,000) level increase risk of cancer from drinking two liters of water a day for 70 years at the set limits. The MCL risk level is higher for disinfection byproducts than for most other contaminants in drinking water. USEPA justifies this higher level of risk as a reasonable balance to the benefits that chlorine disinfection provides by preventing the spread of waterborne diseases. Effective January 2002, the MCLs for TTHMs was lowered to 0.08 part per million, and a new standard for HAAs of 0.06 part per million was established. One part per million is roughly equivalent to a drop of water in an average-sized swimming pool. Currently compliance with the regulations is based on a system-wide running annual average of 20 sampling locations for TTHMs and HAAs values, respectively. However, future regulations (set to promulgate in 2007) will require that each sampling location meet these MCLs on a running annual average. The floating cover will allow LADWP to substantially reduce its application of disinfectant chemicals (and associated byproducts like TTHMs and HAAs) to comply with the standards. As such, the proposed reservoir cover would serve to improve potable water quality for LADWP customers. A less than significant impact is anticipated relative to water quality and no mitigation is required.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

See item i) below.

h) Place within a 100-year flood area structures to impede or redirect flood flows?

See item i) below.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact. The proposed project site lies within a 100-year flood zone.[12] However, the construction and operation of the proposed project would not involve the placement of housing or structures within a 100-year flood hazard area or impede or redirect flood flows. Additionally, the proposed project site is not located in an area of potential inundation (from

[12] City of Los Angeles, *General Plan Safety Element Exhibit F*, "100-Year & 500-Year Flood Plains in the City of Los Angeles."

failure of upstream dams)[13]; therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving flooding. This is due to the fact that the proposed project would not increase the risk from inundation over what is currently experienced by existing local residents and employees, since the proposed project would serve existing LADWP customers and would not involve new populations or sizeable aboveground structures. In the event of reservoir/dam failure, flood waters would flow down the existing stream drainage to the lower Santa Ynez Canyon dam reservoir (approximately ¼ mile southeast of the proposed project site, just west of the Santa Ynez Canyon drainage channel's undercrossing at Palisades Drive), and, depending on the volume released, further down to Santa Ynez Lake (south of Sunset Boulevard). The volume of potable water released in such an event would be limited to the amount of water contained in the reservoir (at a maximum), which is not expected to yield enough water to pose a threat to life or property, given the lack of established populations along the base of the canyon. Therefore, no flooding impacts are expected and no mitigation is required.

j) Inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact. The proposed project is not subject to tsunami-related inundation as it is not located within the range of a tsunami hazard zone.[14] The project site is located in an area surrounded by relatively steep undeveloped slopes, which may be subject to mudflows. However, mudflows, should they occur, are not expected to significantly affect the reservoir facility; moreover, the proposed reservoir cover would minimize the potential effects a mudflow would have on the facility. Although the reservoir itself may experience seiching during a large seismic event, given the relative isolation of the facility and the containment provided by the proposed cover, the effects of such an occurrence are not anticipated to be significant. Therefore, the potential impacts to, or from, the construction and operation of the proposed project from inundation by seiche, tsunami, or mudflow is very low and no mitigation is required.

IX. LAND USE AND PLANNING

Would the project:

a) Physically divide an established community?

No Impact. Construction impacts from the proposed project would be short-term and would be confined to the existing reservoir site. Construction activities would not traverse established communities or divide any communities, because access along Palisades Drive would be maintained during construction activities, and any limitations to access (e.g., to Santa Ynez Canyon Park) would be temporary in nature. Since the proposed

[13] City of Los Angeles, *General Plan Safety Element Exhibit G*, "Inundation & Tsunami Hazard Areas in the City of Los Angeles."
[14] City of Los Angeles, *General Plan Safety Element Exhibit G*, "Inundation & Tsunami Hazard Areas in the City of Los Angeles."

project would operate at the existing reservoir facility, it would not physically divide the community. No impacts are expected and no mitigation is required.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. Construction and operation of the proposed project would occur exclusively within an existing LADWP reservoir facility; as such, no effects on any land uses on or near the project site, or conflicts with any General Plan designations or zoning ordinances, are anticipated. Consequently, impacts to land use plans, policies, and regulations would be less than significant and no mitigation is required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The land uses in the immediate vicinity of the project site are open space, residential, and commercial uses. No known habitat or natural communities conservation plans exist for the project area. Therefore, the construction and operation of the proposed project would not conflict with, or otherwise adversely impact, any habitat or natural communities conservation plans, and no mitigation is required.

X. MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less Than Significant Impact. Development of the proposed project would involve the use of construction materials, which includes negligible quantities of non-renewable resources. Construction of the proposed project would follow industry standards and would not use non-renewable resources in a wasteful or inefficient manner. No mineral resources that are of value to the region or residents of the state have been identified in the vicinity of the project site. The proposed project is not located within a Significant Mineral Aggregate Resources Area as designated by the State of California Department of Conservation. Therefore, the proposed project would not result in the loss of availability of any mineral resource that would be of value to the region and the residents of the state. Once constructed, operation of the proposed improvements would not affect known mineral resources. Impacts to known mineral resources (e.g., sand, gravel, and petroleum fuels) from construction and operation are expected to be less than significant and no mitigation is required.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The proposed project is not located in an area designated as containing locally important mineral resources.[15] Therefore, the construction and operation of the proposed project would not result in the loss of availability of any mineral resource and no mitigation is required.

XI. NOISE

a) Exposure of persons to or generation of noise levels in excess of applicable standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact. Sound is defined as any pressure vibration detected by the human ear. Noise is defined as any unwanted sound. The preferred unit for measuring sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Typical human hearing can detect changes in sound levels of approximately 3 dBA and greater under normal conditions.

Noise may be generated from a point source, such as a piece of construction equipment, or from a line source, such as a road containing moving vehicles. Because noise spreads in an ever-widening pattern, the given amount of noise striking an object, such as an eardrum, is reduced with distance from the source.

The proposed project consists of the placement of a floating cover on the existing Santa Ynez Reservoir. The project is located within the City of Los Angeles in an open space area surrounded by the Topanga State Park. Residential units are located to the north and east. As observed on an aerial photo (see Figure 7), the most proximate homes are located to the north (known as the "Country Estates"). Construction equipment could operate as close as approximately 650 feet (in flat distance) to these homes. However, the intervening mountainous terrain effectively shields these residents from construction activities. Some residents to the east do have a partial view of the reservoir. The most proximate of these residents are located along the west side of Palisades Drive at a distance of about 1,000 feet. These residents are also subject to noise generated by traffic traveling along Palisades Drive.

To determine ambient noise levels in the project area, field measurements were performed July 22, 2003. The ambient noise measurements revealed

[15] City of Los Angeles Department of Planning. *Los Angeles Citywide General Plan Framework Draft Environmental Impact Report*. January 1995.

that the area surrounding the proposed project is a fairly quiet area. Aircraft and automobile traffic are the dominant sources of noise. Refer to Appendix E for the complete report prepared for the proposed project.

Four noise readings were taken to document ambient noise levels at and near the project site. The L_{eq}, L_{min}, L_{max}, L_{02}, L_{08}, L_{25}, and L_{50} values were recorded.[16] Monitoring locations, as shown in Figure 7, were chosen to best represent the characteristics of potential noise sensitive uses/receptors[17] closest to the proposed project. The results of the survey are included in Table 5. Each reading is summarized below.

NR-1 - This reading was obtained to document ambient noise levels at the reservoir boundary. The meter was located within Santa Ynez Canyon Park at the chain link gate that leads to the reservoir. The major source of noise was from aircraft overflights, however background traffic and birdcalls also added to the measurement.

NR-2 – This reading was obtained to document ambient noise levels in the area of the Country Estates nearest Palisades Drive. The meter was located in the wooded area approximately 50 feet southwest of Vereda De La Montura. The meter was located approximately 15 feet below the grade of the road. The primary source of noise was from vehicles traveling along Vereda De La Montura, but traffic on Palisades Drive was also audible.

NR-3 – This reading was obtained to document ambient noise levels at the Country Estates (behind the hill that separates the residents from sight of the reservoir). The meter was located in the wooded area approximately 200 feet south of Calle Del Jonela. The meter was located approximately 10 feet below the grade of the road. The primary sources of noise were from aircraft overflights and birdcalls.

NR-4 – This reading was obtained to document ambient noise levels at the residents that would potentially most impacted by the proposed project. The meter was located along the west side of Palisades Drive at the residential unit at 1453 Palisades Drive, which is located within a condominium complex. This location was approximately 200 feet north of Palisades Circle. The meter was placed at a distance of 45 feet west of the Palisades Drive curb line. This distance corresponds with the approximate setback of the residence, though some are slightly closer to the roadway (as close as approximately 35 feet from the curb line). The primary source of noise was from vehicles traveling along Palisades Drive, but barking dogs and aircraft overflights were also audible.

[16] The L_{eq} value is representative of the equivalent noise level or logarithmic average noise level obtained over the measurement period. The L_{min} and L_{max} represent the minimum and maximum root-mean-square noise levels obtained over a period of one second. The L_{02}, L_{08}, L_{25}, and L_{50} represent the values that are exceeded 2, 8, 25, and 50 percent of the time or 1, 5, 15, and 30 minutes per hour if the readings were extrapolated out to an hour's duration.

[17] Per the Noise Element of the General Plan of the City of Los Angeles, a "noise sensitive use" includes: residential, schools, libraries, churches, hospitals, auditoriums and outdoor recreation land use areas.

Scale: = 400 feet

Source: Chambers Group Inc., 2003

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LOS ANGELES DEPARTMENT OF WATER AND POWER
SANTA YNEZ RESERVOIR WATER QUALITY IMPROVEMENT PROJECT

Noise Reading Locations

CDM

Figure 7

Table 5
Ambient Noise Levels In The Proposed Project Vicinity

Monitoring Location	L_{eq} (dBA)	L_{02} (dBA)	L_{08} (dBA)	L_{25} (dBA)	L_{50} (dBA)	L_{min} (dBA)	L_{max} (dBA)
NR-1	43.7	49.7	46.9	43.8	42.1	37.9	54.7
NR-2	48.7	58.2	49.4	45.3	42.4	34.7	66.6
NR-3	41.9	49.3	44.8	41.6	39.8	34.8	56.8
NR-4	59.5	66.4	63.7	60.9	56.6	38.5	70.9

Source: Synectecology, 2003

Both the City of Los Angeles Municipal Code and Thresholds Guide note that where the minimum ambient noise level is less than the "presumed" ambient level[18], the "presumed" ambient level is to serve as the minimum ambient level. The "presumed" ambient level for residential areas is 50 dBA between the hours of 7:00 a.m. and 10:00 p.m. (which would include typical construction hours). In cases where the actual ambient level exceeds the presumed ambient level (e.g., NR-4), the actual ambient level would be applied.

The proposed project is located within the City of Los Angeles and is thus subject to its General Plan and noise ordinances. With respect to an increase in noise due to project construction, the Draft L.A. CEQA Thresholds Guide[19] (Thresholds Guide) indicates that a project would normally have a significant impact on noise levels if: (1) construction activities lasting more than one day would exceed ambient exterior noise by 10 dBA or more at a noise sensitive use; (2) construction activities lasting more than ten days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or (3) construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at anytime on Sunday.

As described in detail in Appendix E of this document, in order that noise measurements can be compared to the significance threshold in the Thresholds Guide, L_{eq} values were converted to Community Noise Equivalent Levels (CNEL), which is the adjusted noise exposure level for a 24-hour day. Based on actual ambient noise readings, NR-1, NR-2 and NR-3 are below the presumed ambient for there respective land uses; therefore, the presumed

[18] The "presumed" ambient noise level is the noise level used when no ambient noise level has been taken or when the ambient noise level is measured at a level lower than the presumed ambient noise level for the representative zone, as provided in Section 111.03 of the Los Angeles Municipal Code (LAMC).

[19] City of Los Angeles, *Draft L.A. CEQA Thresholds Guide*. May 14, 1998.

ambient level of 50 dBA would apply to those three locations. The estimated CNEL for 50 dBA would be 51 dBA. The CNEL for NR-4 is estimated at 62 dBA for homes located along the road (with no direct view of the reservoir) or 57 dBA for homes set back from the road with a view of the reservoir.[20]

As stated previously, the proposed project is the modification of an existing reservoir. All noise associated with the project is related to the removal of various portions of the existing reservoir and construction of the floating cover and appurtenant facilities.

Noise levels associated with construction activities would be higher than the ambient/existing noise levels of the surrounding project area, but would cease once construction of the proposed project is completed. Two types of noise impacts could occur during the construction phase. First, the transport of workers and equipment to the construction site would incrementally increase noise levels along existing site access roadways. This increase in noise levels would be intermittent and short-term; therefore, the transport of workers and/or equipment to the site would have a less than significant impact on noise sensitive receptors along the truck routes.

The second type of impact is related to noise generated by on-site construction. Local residents could be subject to elevated noise levels due to the operation of construction equipment. Construction activities are carried out in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses.

Table 6 presents typical noise levels produced from the use of construction equipment. Equipment noise is similar during all phases of construction, although the actual construction of structures typically results in less noise than site preparation activities. The grading and site preparation phase tends to create the highest noise levels because the noisiest construction equipment is found in the earthmoving equipment category. This category includes excavating machinery (backfillers, bulldozers, draglines, front loaders, etc.) and earthmoving and compacting equipment (compactors, scrapers, graders, etc.).

[20] As described in greater detail in Appendix E of this document, these CNEL estimates are conservative. A higher CNEL could be experienced at any individual resident depending on the location.

Table 6
Noise Associated With Typical Construction Equipment

Type of Equipment	Range of Sound Levels Measured (dBA at 50 feet)	Suggested Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers, 12,000-18,000 ft-lb/blow	81-96	93
Rock Drills	83-99	96
Jack Hammers	75-85	82
Pneumatic Tools	78-88	85
Pumps	68-80	77
Dozers	85-90	88
Tractor	77-82	80
Front-End Loaders	86-90	88
Hydraulic Backhoe	81-90	86
Hydraulic Excavators	81-90	86
Graders	79-89	86
Air Compressors	76-86	86
Trucks	81-87	86

Source: *Noise Control for Buildings and Manufacturing Plants*, Bolt, Beranek, and Newman, 1987

For analytical purposes, construction noise for public works type projects (such as the proposed project) is presented as 89 dBA L_{eq} [21]when measured at a distance of 50 feet from the construction effort. This value takes into account both the number of pieces and spacing of the heavy equipment used in the construction effort. In later phases during cover assembly, noise levels would be less than this value. However, as a worst-case scenario, the 89 dBA L_{eq} value is used to assess the impact of the construction effort.

The significance thresholds in the Thresholds Guide are based on an increase over the ambient noise level quantified/measured as CNEL. Though CNEL represents a 24-hour day, construction would occur for a period of about 8 hours a day. For purposes of this analysis, the 89 dBA L_{eq} translates into an 84 dBA CNEL.

As indicated previously, the Thresholds Guide indicates that a project would normally have a significant impact on noise levels if construction activities

[21] Bolt, Beranek, Newman, *Noise from Construction Equipment and Operations, Building Equipment*, 1971.

would last more than one day and exceed ambient exterior noise by 10 dBA or more at a noise sensitive use, last more than ten days in a three-month period and exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use, or exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at anytime on Sunday. The project would be expected to last more than 10 days within a three-month period and the impact would be significant if its noise exceeded the ambient noise level by 5 dBA or more.

The nearest residential land uses are those located immediately north and east of the site with the northern residents being the nearest receptors (NR-3 on Figure 8) being located approximately 650 feet (in flat distance) from the nearest construction effort. Based on a direct line-of-sight, exterior noise from construction could be as high as 56 dBA CNEL at this distance.[22] However, the residents to the north are shielded from construction noise by the intervening topography that effectively blocks the sight of the reservoir, and construction noise. Assuming the attenuation caused by the intervening terrain provides, at a minimum, a 5 dBA reduction[23], noise at the closest residents is estimated at 51 dBA CNEL. This level is the same as the presumed ambient level of 51 dBA CNEL; therefore, construction from the proposed project is not expected to exceed the presumed ambient level by 5 dBA. As such, the impact is less than significant.

Residents located along Vereda De La Montura (NR-2) are further from the construction and subject to louder existing ambient levels from roadways. These residents are also shielded from view of the construction. As such, the impact to these residents is less than those assumed for the more proximate residents and would also be less than significant.

Some residents located along Palisades Drive (NR-4) may have a direct view of portions of the construction effort. The closest of these residents are located approximately 1,000 feet from construction. Based on this distance, the exterior CNEL noise from site construction is estimated at 51 dBA CNEL. Ambient levels at these units are estimated at approximately 57 dBA CNEL. Construction would not cause the ambient to be exceeded by 5 dBA at a noise sensitive use. Therefore, the impact is less than significant and no mitigation is required. No noise is associated with the subsequent operation of the reservoir cover; hence there would be no impact from operation of the proposed project and no mitigation is required.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

[22] The typical spreading loss for point source noise is 6 dBA per each doubling of distance from the noise source (i.e., 100 feet, 200 feet, 400 feet, 800 feet, 1,600 feet, etc.). As used by the California department of Transportation (Caltrans), for soft sites (vegetated), such as the proposed project site, a spreading loss of 7.5 dBA is often used. Therefore, the resultant noise would be 84 dBA (construction noise in CNEL) minus approximately 28 dBA for distance for a total of about 56 dBA CNEL.

[23] Federal Highway Administration, *FHWA-RD-77-108, FHWA Highway Traffic Noise Prediction Model*, December 1978, and Caltrans, *Technical Noise Supplement*, October 1998.

Less Than Significant Impact. Groundborne vibration is measured in terms of the velocity of the vibration oscillations. As with noise, a logarithmic decibel scale (VdB) is used to quantify vibration intensity. When groundborne vibration exceeds 75 to 80 VdB[24], it is usually perceived as annoying to building occupants. The degree of annoyance is dependent upon type of land use, individual sensitivity to vibration, and the frequency of the vibration events. Typically, vibration levels must exceed 100 VdB before any building damage occurs.

Excessive vibration is typically associated with blasting or pile driving activities, neither of which is anticipated in the construction of the cover. As a result, although construction of the proposed project would include use of heavy equipment, it is unlikely that construction would result in perceptible, let alone excessive, groundborne vibration or groundborne noise levels. Operation of the proposed project would be passive and does not cause groundborne vibration or noise. No significant impacts would occur and no mitigation is required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The project consists of the installation of a cover on an existing reservoir. Operation of the existing reservoir does not produce noise and no operational noise would result from covering the reservoir. Therefore, no substantial permanent increase in ambient noise levels would occur in the project vicinity above levels existing without the project.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. As discussed in item a) above, construction noise levels at and near the project site would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. Construction would generate an increase in ambient noise levels in the project vicinity; however, the adjacent noise sensitive receptors are at a distance such that any increase in noise due to construction would be mostly inaudible. The potential exposure of persons to the periodic increase in noise levels due to construction would be short-term and do not exceed the criteria outlined in the Thresholds Guide. Also, construction would be subject to the provisions (e.g., operating hours) specified in the City of Los Angeles Noise Ordinance. Therefore, the impact is less than significant and no mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

[24] Federal Transit Administration, Office of Planning, *Traffic Noise and Vibration Impact Assessment, Final Report*, April 1995.

No Impact. The proposed project is not located within an airport land use plan or in the immediate vicinity of any airport or private airstrip. At a distance of approximately 8 miles, the Santa Monica Airport represents the most proximate public use airport to the project. Therefore, the construction of the proposed project would not expose workers to excessive aircraft noise levels and no mitigation is required.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located within an airport land use plan or in the immediate vicinity of any airport or private airstrip. At a distance of approximately 8 miles, the Santa Monica Airport represents the closest public use airport to the project. Therefore, the construction of the proposed project would not expose workers to excessive noise levels and no mitigation is required.

XII. POPULATION AND HOUSING

Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. Construction and operation of the proposed project would serve to increase the safety and reliability of potable water supply in the LADWP service area, and would not increase the available supply of potable water in the region. As such, the project would not induce population growth in the area, either directly or indirectly. No growth-inducing impacts are anticipated to result from the proposed project, as the project would merely accommodate existing LADWP water customers; therefore, no mitigation is required.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The construction and operation of the proposed project would occur within an existing LADWP reservoir facility. No housing is to be removed as part of the proposed project. Therefore, construction and operation of the proposed project would not have any impacts on the number or availability of existing housing in the area and would not necessitate the construction of replacement housing elsewhere; therefore, no mitigation is required.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. As mentioned in item b) above, the construction and operation of the proposed project would not displace any housing, and therefore would not

result in the displacement of people. Therefore, no impact is expected and no mitigation is required.

XIII. PUBLIC SERVICES

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?

Less Than Significant Impact. Construction of the proposed project would occur within the existing reservoir site, away from the road system. Therefore, the construction of the proposed project is not anticipated to reduce access for emergency vehicles near the project site. During construction, the existing reservoir would be drained of all water, thus reducing the available supply of surface water for fighting fires (i.e., for use by firefighting helicopters) in the local area, which may potentially increase risks to people or structures from wildland fires. However, the existing fire hydrant located on the site is supplied by a pump located at Palisades Drive and would not be affected by the proposed project. In addition, other surface water sources exist in the vicinity of the proposed project site (e.g., Pacific Palisades Reservoir [approximately 3 miles east of Santa Ynez Reservoir] and Santa Ynez Lake [approximately 2 miles south of Santa Ynez Reservoir]) that could be utilized for firefighting purposes in the event of a wildland fire during construction activities. Operation of the proposed project would occur at the existing reservoir facility and would not require additional fire protection. Impacts relative to fire services would be less than significant and no mitigation is required.

ii) Police protection?

No Impact. Construction of the proposed project would occur within the existing reservoir site, away from the road system. Therefore, the construction of the proposed project would have limited potential to reduce access for emergency vehicles near the project site (i.e., along Palisades Drive). Operation of the proposed project would be passive and would not require additional police protection. No impacts are anticipated to occur relative to police services and no mitigation is required.

iii) Schools?

Less Than Significant Impact. No population increase in the project area would result from the construction and operation of the proposed project. No schools exist in the vicinity of the proposed project site; therefore, no substantial adverse physical impact to local schools from

construction and operation of the proposed project would occur, and no mitigation is required.

iv) Parks?

No Impact. The construction and operation of the proposed project would not generate any additional population that would increase demand for neighborhood or regional parks or other recreational facilities. Furthermore, access to state and local parks (e.g., Topanga Canyon State Park and Santa Ynez Canyon Park, respectively) would be maintained during construction and operation of the proposed improvements. Accordingly, no adverse physical impact to parks would result, and no mitigation is required.

v) Other public facilities?

No Impact. The construction and operation of the proposed project is not expected to result in adverse physical impacts associated with any other public facilities in the area or in the City of Los Angeles as a whole (including the reservoir itself). No impacts are anticipated and no mitigation is required.

XIV. RECREATION

Would the project:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. Neither the construction nor operation of the proposed project would generate any additional population that would increase the use of existing neighborhood or regional parks or other recreational facilities. Therefore, no impacts to existing neighborhood and regional parks or other recreational centers are anticipated, and no mitigation is required.

b) Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed project involves the construction of a reservoir cover, replacement of the existing reservoir's asphaltic cement floor, and construction of appurtenant structures (e.g., inlet/outlet structure) necessary for the efficient operation of the facility. Construction and operation of the proposed project would not include recreational facilities or require construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. No impacts are expected and no mitigation is required.

XV. TRANSPORTATION/TRAFFIC

The proposed reservoir improvements would be constructed at the existing Santa Ynez Reservoir site (see Figure 2, on page 2-3) on Santa Ynez Road (off of Palisades Drive). Santa Ynez Road is the reservoir's access road and is gated to prevent unrestricted vehicle entry, but also serves as a public pedestrian/bicycle access road to Santa Ynez Canyon Park. Palisades Drive, the only public street in the vicinity of the proposed project that is anticipated to be affected by construction activities, is classified in the City of Los Angeles General Plan Transportation Element as a Designated Scenic Highway.[25] It has two lanes in each direction and has a dual left turn centerline south of Santa Ynez Road on Palisades Drive, but is divided by a landscaped median north of Santa Ynez Road to approximately Monte Grande Place. Palisades Drive also has curbside parking north of Santa Ynez Road, but has posted "No Stopping Any Time" signage south of Santa Ynez Road to Sunset Boulevard (i.e., on-street parking is unrestricted north of Santa Ynez Road, but vehicles are not allowed to stop anytime between Santa Ynez Road and Sunset Boulevard).

Land uses adjacent to the proposed project are primarily open space/recreation (e.g., parkland), but single- and multi-family residential and commercial uses occur in proximity to the reservoir site. No schools are located within 2 miles of the proposed project site. No public transportation routes occur along any portion of Palisades Drive or in the project vicinity. The closest public transportation routes (MTA Routes 2, 302, and 576) are located along Sunset Boulevard, approximately 2 miles south of the intersection of Santa Ynez Road and Palisades Drive.

Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?

Less Than Significant Impact. For a temporary period during construction, there may be a minor alteration to the current traffic patterns on Palisades Drive at Santa Ynez Road (i.e., due to construction traffic entering/exiting the reservoir site), which would entail a flagman and/or signage to caution vehicles on Palisades Drive regarding construction vehicles. Under a worst-case traffic scenario for construction activities, for the purposes of this analysis, it is assumed that all 24 workers would drive to and from the site each work day, as well as all mobile construction equipment (e.g., welder's truck, 3 pick-up trucks, utility truck, and 6 delivery/haul trucks), and even several pieces of equipment that would typically be considered "stationary" construction equipment (e.g., water truck, 2 dump trucks, and 2 concrete trucks). Although extremely unlikely, all the aforementioned vehicles are

[25] City of Los Angeles. *Transportation Element of the General Plan*. City Plan Case No. 96-0424. Council File No. 97-1387. Approved by City Planning Commission July 24, 1997. Adopted by City Council September 8, 1999.

assumed to drive to and from the site along Palisades Drive each workday, which would constitute 40 a.m. and 40 p.m. trips each day. This is not considered a significant traffic impact, since this would not represent a substantial increase in the number of overall trips already occurring along Palisades Drive, and furthermore, as mentioned above, these additional trips would occur for only a temporary period during construction activities. At the completion of construction activities at the reservoir facility, traffic operations on Palisades Drive at Santa Ynez Road would return to normal. Although no substantial adverse traffic effects are anticipated, prior to construction, LADWP would submit the plans for approval to LADOT to ensure that traffic impacts, if any, are kept to a minimum. No significant adverse environmental impacts associated with traffic load and capacity or congestion are anticipated to result from construction and operation of the proposed project and no mitigation is required.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

No Impact. The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by MTA. The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed if an Environmental Impact Report (EIR) is being prepared. Although an EIR is not being prepared for the proposed project, an analysis of regional impacts as outlined in the CMP was conducted.

A specific system of arterial roadways plus all freeways comprises the CMP system. A total of 164 intersections are identified for monitoring on the system. Per CMP Transportation Impact Analysis (TIA) Guidelines, a traffic impact analysis is to be conducted:

- At CMP arterial monitoring intersections, including freeway on- or off-ramps, where the proposed project would add 50 or more trips during either AM or PM weekday peak hours.
- At CMP mainline freeway-monitoring locations, where the project would add 150 or more trips, in either direction, during the either the AM or PM weekday peak hours.

Under the worst-case construction traffic scenario discussed above in item a), the proposed project is not expected to add more than 40 a.m. or p.m. weekday peak hours trips, based on 24 workers in a typical 11-hour day driving alone to the project site, as well as daily trips of haul/delivery trucks, other mobile construction equipment, and equipment typically classified as stationary off-road vehicles (e.g., water truck, dump trucks, etc.). Given this worst-case condition, 40 peak-hour trips would be generated by the construction crew, and only for the temporary construction period.

Additionally, no CMP arterial monitoring intersections are located at or near the proposed project, and no freeway on-ramps or off-ramps would be affected by construction activities, aside from the possible use of such facilities by the aforementioned commuting workers. The operation of the proposed reservoir improvements, once constructed, would occur within the existing reservoir facility; as such, no traffic impacts would occur as a result of project operation and no mitigation is required.

Construction activities would not add enough peak-hour trips to the existing street system to trigger further analysis set forth by the CMP (i.e., less than 50 daily a.m. or p.m. trips). The construction activities would not occur on the CMP system, and would result in only potential temporary traffic effects at the intersection of Santa Ynez Road and Palisades Drive. Therefore, no impact to CMP-designated roads or highways would occur and no mitigation is required.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The proposed project would not generate air traffic nor affect such activities. No impacts are anticipated and no mitigation is required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. Construction and operation of the proposed project would temporarily alter existing street/traffic patterns at Palisades Drive and Santa Ynez Road. These temporary changes to traffic patterns are not anticipated to affect levels of service during the construction phase, and would be temporary and limited to the immediate area in which construction vehicles would enter and exit the reservoir facility. All changes to traffic patterns (e.g., temporary lane closures and traffic-slowing measures) would be coordinated with LADOT to minimize impacts to motorists, bicyclists, and pedestrians. No design features (e.g., sharp curves or dangerous intersections) or incompatible uses are proposed as part of this project. As such, no impacts are anticipated and no mitigation is required.

e) Result in inadequate emergency access?

Less Than Significant Impact. The proposed project would not hinder emergency access to Santa Ynez Canyon Park or the reservoir facility, except for short-term periods during construction when construction vehicles would be traveling along Santa Ynez Road. As mentioned above, all construction activities would be carried out in accordance with LADOT, LAFD, and LAPD emergency access requirements, as necessary, and access would be maintained during construction activities. No significant emergency access impacts are expected, and no mitigation is required.

f) Result in inadequate parking capacity?

Less Than Significant Impact. Any temporary lane closures resulting from construction activities, though unlikely, would result in short-term loss of parking capacity along affected sections of Palisades Drive. Such parking deficits, if they were to occur, would be temporary and would not affect the overall parking capacity in proximity to the site, as the existing on-street parking along Palisades Drive is currently underutilized. The operation of the proposed improvements would not generate any vehicle trips, nor require any parking as part of its operation. No significant impacts would occur and no mitigation is required.

g) Would the project conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. The proposed project would not conflict with adopted policies supporting alternative transportation. As discussed above, construction activities would be coordinated with LADOT in order to minimize impacts to alternative transportation facilities (e.g., bike lanes). Access to bike lanes would be maintained throughout construction, as required by LADOT. As a result, no impacts would result from the proposed project and no mitigation is required.

XVI. UTILITIES AND SERVICE SYSTEMS

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The proposed project would not result in changes to facilities or operations at existing wastewater treatment facilities. Consequently, no modification to a wastewater treatment facility's current wastewater discharges would occur; hence, no impact to wastewater treatment requirements of the applicable Regional Water Quality Control Board would occur and no mitigation is required.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. It is not anticipated that the construction and operation of the proposed project would generate wastewater, and would therefore not require the construction of new water or wastewater treatment facilities or expansion of existing facilities. No impacts are anticipated and no mitigation is required.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. Stormwater drainage facilities are provided throughout the project area. Construction of the proposed project is not expected to increase

stormwater runoff in the project area, since the proposed improvements would be placed on and beneath previously developed surfaces at the existing reservoir site. Although unlikely, construction dewatering that may be required during construction would be temporary in nature and the amount of dewatering discharge would not exceed the capacity of the existing stormwater drainage facilities, nor require new or expanded facilities of this type. The proposed improvements, once operational, would function as a closed system, and therefore would not impact stormwater drainage facilities. The construction and operation of the proposed project is not anticipated to require, or indirectly result in, the construction of new stormwater drainage facilities or the expansion of existing facilities. Therefore, no impacts are expected and no mitigation is required.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The proposed project is a water supply project that would store treated potable water as part of the existing LADWP water supply infrastructure and serve the area from existing entitlements and resources. No new or expanded entitlements would be needed during construction or operation of the proposed project. No water supply impacts would result and no mitigation is required.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. Construction and operation of the proposed project would not generate wastewater or otherwise require wastewater treatment capacity. No impacts to wastewater treatment capacity are anticipated and no mitigation is required.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Excavation and construction debris would be recycled or transported to the nearest landfill site and disposed of appropriately. It is anticipated that the construction contractor will work with the City of Los Angeles' Recycling Coordinator to ensure that source reduction techniques and recycling measures are incorporated into project construction. The amount of debris generated during project construction is not expected to significantly impact landfill capacities. Operation of the reservoir improvements would not generate any solid waste. No significant impacts to landfill capacity are anticipated and no mitigation is required.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. As mentioned above in item f), construction debris would be recycled or disposed of according to local and regional standards, and operation of the proposed project would not generate any solid waste. As such, no significant impacts related to compliance with solid waste statutes and regulations are expected and no mitigation is required.

MANDATORY FINDINGS OF SIGNIFICANCE

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?

No. The analysis conducted in this Initial Study results in a determination that the proposed project, either individually or cumulatively, would not have a significant effect on the local environment. The proposed project would involve the installation of a floating cover over an existing open potable water storage reservoir. The proposed improvements (e.g., new inlet/outlet piping) would be placed at-grade and underground in an area currently developed within the concrete reservoir facility, and the project site is devoid of significant fish, wildlife, and/or plant populations. The reservoir is filled with treated potable drinking water and is devoid of vegetation and aquatic organisms. As such, the reservoir does not possess significant resource value for foraging bats or avian species. The loss of the open surface waters of the reservoir from the cover would not result in a loss of biological functionality for the basin overall as part of the migratory waterfowl flyway through the area. Accordingly, the proposed project would not have the potential to degrade the environment in this regard. Furthermore, because the site has been previously graded and improved with the existing reservoir facility, the likelihood of disturbing significant, if any, cultural resources is considered remote. It is hereby found that the proposed project involves no potential for any impacts, either individually or cumulatively, on wildlife resources and cultural resources, and no mitigation is required.

Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

No. As discussed in the respective issue areas, the proposed project would have minor, or less than significant, impacts to some environmental resources. The implementation of the identified project-specific mitigation measures and compliance with applicable codes, ordinances, laws and other required regulations, would reduce the magnitude of any impacts associated with construction activities to a level of less than significant. Thus, for the reasons set forth below, impacts would not be cumulatively considerable.

Although current and probable future projects located near the proposed project cannot be ascertained based on available data, it is reasonable to assume that the projects with the potential to contribute to cumulative impacts would be those projects occurring concurrent with, and in proximity to, the proposed project. Such projects, as may be determined at this level of planning, would be private

residential developments or other utility projects being undertaken by LADWP in the proposed project area at the time of construction activities. The construction impacts of these projects, as well as those of the proposed project (as discussed above), would be temporary in nature, and would be limited to the area in which construction activities are occurring. Given that these projects would be coordinated by LADWP, it can be anticipated that LADWP would initiate construction of each project in a manner such that construction activities associated with different projects would occur either at different times, or at sufficient distance from one another as to avoid cumulative effects relative to air quality, noise, and traffic.

With regard to air quality, the SCAQMD has established incremental emissions thresholds to determine whether a project will contribute to significant impacts. Because the proposed project would contribute emissions at rates well below SCAQMD significance thresholds, and given the aforementioned assumption that related LADWP projects would be coordinated as to avoid cumulative impacts in any one area (at any given time), it is anticipated that the air quality impacts of the proposed project and other related projects would not be cumulatively considerable.

Noise impacts, similar to those related to air quality, would be dependent on the timing and location of related project construction in conjunction with the construction of the proposed project. As such, assuming that LADWP would phase such projects to avoid, to the extent feasible, concurrent construction activities in any one location, it can be concluded that noise impacts of the proposed project and related projects (given project-specific noise impacts are less than significant) would not result in noise impacts that are cumulatively considerable.

With regard to traffic, construction activities generate truck traffic and vehicular traffic associated with construction workers. Impacts resulting from the proposed project's construction traffic would be temporary and are not expected to be significant, as discussed above. Traffic impacts of the proposed project, in conjunction with those of the related LADWP projects, would be minimized by coordination with LADOT, which is required to maintain proper levels of service and the overall function of the City's transportation network. Given that all LADWP projects are subject to review by LADOT (when traffic system components or function are affected), it is assumed that LADOT would require that LADWP coordinate its projects such that the traffic system and levels of service in any one area are maintained. Review by, and coordination with, LADOT would preclude the possibility of cumulative traffic impacts resulting from proposed project and related project construction activities. Based on the above, the proposed project is not anticipated to result in traffic impacts that are cumulatively considerable.

Therefore, no impacts under this category are anticipated and no mitigation is required.

Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

No. The proposed project would have no adverse effects on human beings other than the beneficial effect of providing a more reliable water supply for existing LADWP water service customers. Therefore, the proposed project is not anticipated to have a direct or indirect substantial adverse effect on human beings and no mitigation is required.

SECTION 4.0

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REFERENCES

Bass, Ronald E., Herson, Albert I. and Bogdan, Kenneth M., *CEQA Deskbook*, April 1999

Bolt, Beranek, and Newman, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, U.S. Environmental Protection Agency, 1971.

California Air Resources Board, EMFAC2002 Computer Model, Version 2.2, September 23, 2002

California Air Resources Board, *Air Quality Data Summary*, 1998.

California Air Resources Board (ARB) website http://www.arb.ca.gov/msprog/mailouts/msc9925/msc9925e.pdf, Appendix E, Revised January 10, 2002.

California Department of Transportation website: *http://www.dot.ca.gov/hq/LandArch/scenic/schwy1.html.* "Officially Designated State Scenic Highways". Updated July 25, 2000.

Caltrans, *Technical Analysis Notes*, March 13, 1991.

Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, October 1998.

City of Los Angeles, City of Los Angeles Municipal Code, Chapter XI, Noise Regulation, 1994.

City of Los Angeles, *Draft L.A. CEQA Thresholds Guide*, May 14, 1998.

City of Los Angeles, *General Plan, Safety Element Exhibit A*, "Alquist-Priolo Special Studies and Fault Rupture Areas."

City of Los Angeles, *General Plan*, *Safety Element Exhibit B*, "Areas Susceptible to Liquefaction in the City of Los Angeles."

City of Los Angeles, *General Plan, Safety Element Exhibit C,* "Landslide Inventory & Hillside Areas In the City of Los Angeles."

City of Los Angeles, *General Plan, Safety Element Exhibit D,* "Selected Wildfire Hazard Areas In the City of Los Angeles."

City of Los Angeles, *General Plan, Safety Element Exhibit F,* "100-Year & 500-Year Flood Plains In the City of Los Angeles."

City of Los Angeles, *General Plan Safety Element Exhibit G*, "Inundation & Tsunami Hazard Areas in the City of Los Angeles."

City of Los Angeles Department of Planning. *Los Angeles Citywide General Plan Framework Draft* Environmental Impact Report. January 1995.

City of Los Angeles Planning Commission. *Van Nuys-North Sherman Oaks Community Plan.* September 1998 (Updated May 2001).

City of Los Angeles Website, www.permitla.org/parcel/pargetinfo.cfm. Accessed 4-17-01.

Midwest Research Institute, Improvement of Specific Emission Factors (BACM Project No. 1) Final Report, for SCAQMD (for PM_{10} dust emissions), March 29, 1996.

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

South Coast Air Quality Management District (SCAQMD), *CEQA Air Quality Handbook*, April 1993; URBEMIS 7G.

South Coast Air Quality Management District Website, Current Air Quality Trends (Tables). *http://www.aqmd.gov/smog.* Accessed April 23, 2003.

U.S. Department of Housing and Urban Development, *A Guide to HUD Environmental Criteria and Standards Contained in 24 CFR Part 51*, August 1984.

U.S. Environmental Protection Agency. *EMFAC2001 Draft, Version 2.08* (Modeled for Year 2003 for Average Urban Los Angeles County).

U.S. Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, Bolt, Beranek, and Newman, 1971

U.S. Federal Emergency Management Agency, Federal Emergency Management Agency National Flood Insurance Program Map No. 0601370020, Zone C: (Washington, D.C.: U.S. Federal Emergency Management Agency, May 4, 1999).

APPENDIX A

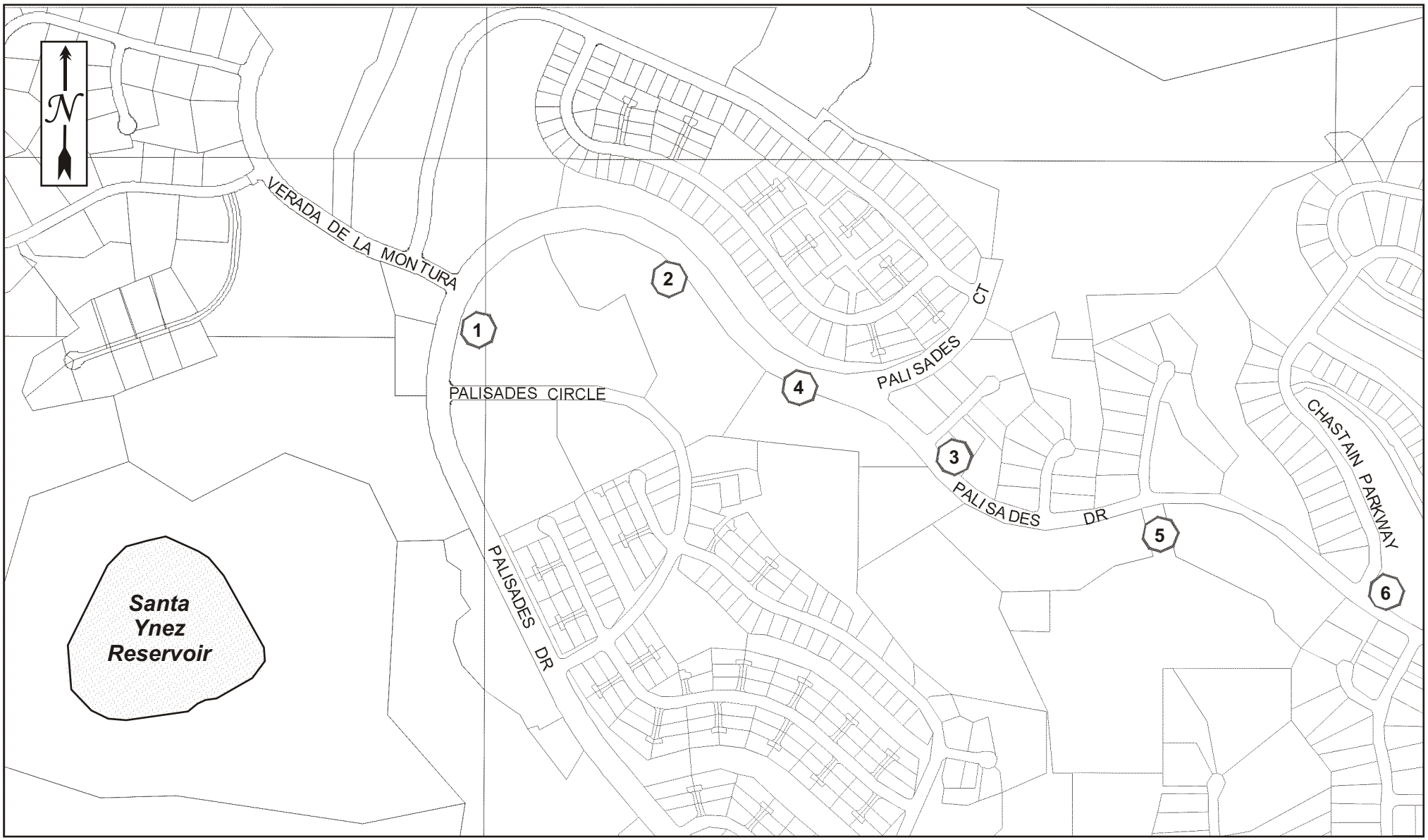
Views of the Reservoir From Adjacent Residential Areas

APPENDIX A

Views of the Reservoir From Adjacent Residential Areas

Introduction

The following photos were taken by the Los Angeles Department of Water and Power to illustrate existing views of the Santa Ynez Reservoir from various locations in the vicinity of the reservoir. The first six photos (as summarized in the first photo location index map for photos 1-6, on the following page) are included to illustrate the views from Palisades Drive, which is designated as a City of Los Angeles Scenic Highway. The next four photos (as summarized in the second photo location index map for photos 7-10) illustrate views of the reservoir from other locations in the vicinity of the reservoir.



Scale: = 500 feet

Source: Los Angeles Department of Water and Power, Environmental Affairs, 2003.

3031-39106-RT.DRAFT 10/22/2003

LOS ANGELES DEPARTMENT OF WATER AND POWER
SANTA YNEZ RESERVOIR WATER QUALITY IMPROVEMENT PROJECT

Photo Location Map of Views Along Palisades Drive

CDM

Photo Locations 1-6

Photo 1: View from 1552 Palisades Drive facing westward. (Note: reservoir not easily visible due to oblique perspective at this location.)

Photo 2: View from 1644 - 1782 Palisades Drive facing westward. Most visible elements of site are debris basin and eastward facing side slope of reservoir.

Photo 3: View from Palisades Drive at Montegrande facing westward. Site mostly obstructed by trees. Visible elements of site are historic slide repair, reservoir, and eastward facing sideslope.

Photo 4: View from 1802 Palisades Drive facing westward. Most site elements are visible.

Photo 5: View from 1950 Palisades Drive facing westward. Most site elements are visible.

Photo 6: View from Palisades Drive at Chastain Parkway facing westward. Most site elements are visible.

Scale: = 500 feet

Source: Los Angeles Department of Water and Power, Environmental Affairs, 2003.

3031-39106-RT.DRAFT 10/22/2003

LOS ANGELES DEPARTMENT OF WATER AND POWER
SANTA YNEZ RESERVOIR WATER QUALITY IMPROVEMENT PROJECT

Photo Location Map of Additional Views in Project Vicinity

CDM

Photo Locations 7-10

Photo 7: View of reservoir from 1475 Chastain Parkway.

Photo 8: View of reservoir from Temescal Ridge.

Photo 9: View of reservoir from 1161 Cumbre Alta Court.

Photo 10: View of reservoir from 1684 Charmel Place.

APPENDIX B
Air Quality Factors and Assumptions

Santa Ynez Reservoir Cover
IS/MND
Air Quality Calculations Summary

Stationary (Off-Road) Construction Equipment Emissions

Equipment Name	Equipment Type	Rated HP[a]	% Load/100[b]	Daily Hours of Operation[c]	Emissions (pounds per day) ROC	CO	NO_X	SO_X	PM_{10}
Excavator (1)	medium diesel	150	0.580	8	0.70	7.66	16.70	1.39	1.04
Water truck (1)	medium diesel	175	0.410	4	0.86	5.74	6.89	0.57	0.43
Dump truck (2)	heavy diesel	300	0.410	4	2.95	19.68	23.62	1.97	1.48
Loader (1)	medium diesel	130	0.465	6	1.09	5.44	7.98	0.73	0.36
Backhoe (1)	medium diesel	80	0.465	6	0.67	3.35	4.91	0.45	0.22
Compactor (1)	medium diesel	100	0.430	2	0.17	0.60	1.72	0.17	0.09
Concrete truck (2)	medium diesel	175	0.620	4	2.60	17.36	20.83	1.74	1.30
Paver (1)	medium diesel	90	0.590	2	0.21	1.06	2.34	0.21	0.11
Subtotal Stationary Equipment					**9.26**	**60.89**	**84.99**	**7.23**	**5.03**

Notes:

a) Horsepower ratings were derived from typical equipment ratings from SCAQMD (Table A9-8-C in the *Handbook*) and from the California Air Resources Board (ARB) website (*http://www.arb.ca.gov/msprog/mailouts/msc9925/msc9925e.pdf* , Appendix E, Revised January 10, 2002)

b) Load factors are based on SCAQMD *Handbook* Table A9-8-D for Off-Road Construction Equipment.

c) Scheduled hours are M-F 7 a.m. to 6 p.m. and Saturday 8 a.m. to 5 p.m. (Average of 10.67 hours per day, six days a week -- used 11 hours for the daily average). Hours of operation for each piece of equipment is based on proportion of 11-hour day during which that piece of equipment is typically used.

Source: South Coast Air Quality Management District CEQA Air Quality Handbook (April 1993), Table A9-8-B. Handbook emission factors used (all diesel): Excavator, Other Construction Equipment (for Water Truck, Dump Truck, and Concrete Truck), Backhoe, Loader, Roller (for Compactor), and Concrete Paver (for Paver).

Mobile (On-Road) Construction Equipment Emissions

Equipment Name	Equipment Type	Daily VMT[a]	Emissions (pounds per day) ROC	CO	NO_X	SO_X	PM_{10}
Construction worker vehicles (24)	light gasoline	960	2.185	27.615	2.453	0.009	0.079
Welder's truck (1)	medium gasoline	5	0.011	0.127	0.016	0.000	0.001
Pick-up trucks (3)	medium gasoline	30	0.068	0.764	0.099	0.000	0.004
Utility truck (1)	medium gasoline	10	0.023	0.255	0.033	0.000	0.001
Concrete/delivery/haul trucks (6)	heavy diesel	240	0.327	1.560	8.196	0.084	0.221
Subtotal Mobile Equipment			**2.614**	**30.322**	**10.797**	**0.094**	**0.306**

Notes:

a) VMT's are estimated assuming all workers arrive at staging areas then proceed to construction activity sites along the proposed alignment and would only work on one section of the pipeline at any given time. Assumed 40 miles per worker commute per day for 24 workers, six days a week, for 78 weeks. Also assumed delivery/haul trips by large diesel trucks would occur 6 times a day at a distance of 40 miles round-trip (to and from LADWP equipment/supply facility and/or fill material disposal site). The number of delivery/haul truck trips are assumed to represent a total distance per day, using one or more trucks for trips of various lengths which total 120 miles per day on average.

Source: EMFAC2001 Draft Version 2.08 (Modeled for Year 2003 for Average Urban Los Angeles County)

PM_{10} Dust Emissions from Construction

Conditions	Area of Ground Disturbance (acres)	Dust Generation Factor	Dust Generation (lbs/day)[b]	Project Total (tons) Over 18-months
Average Conditions	4.0 [a]	0.11 tons/acre-month	**33.85**	**7.92**
Worst-Case Conditions	4.0 [a]	0.42 tons/acre-month	**129.23**	**30.24**

Notes:

a) For the purposes of this analysis, it is assumed that a maximum of 4 acres of the total 11+ acres of the reservoir site would be exposed at any given time during construction. It is assumed that repaving of the reservoir would be phased to restrict exposed soil area to a maximum of 4 acres, though the likelihood of such a large exposed area occurring during construction is very low.

b) Pounds per day conversion assumed 18 months (78 weeks), 6 days a week = 468 days.

Source: Midwest Research Institute, Improvement of Specific Emission Factors (BACM Project No. 1) Final Report, for SCAQMD (for PM_{10} dust emissions), March 29, 1996.

	Project Emissions (pounds per day) ROC	CO	NO_X	SO_X	PM_{10}
Project Totals	**11.87**	**91.21**	**95.78**	**7.32**	**134.57**

APPENDIX C
Biological Resources Technical Memorandum

BonTerra
CONSULTING
Environmental Planning/Resource Management Corporation

October 6, 2003

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VIA FACSIMILE AND MAIL
(949) 752-1307

Subject: Biological Technical Memorandum for the Los Angeles Department of Water and Power Santa Ynez Canyon Reservoir Project, City of Los Angeles, California

Dear Ms. Meyer:

On March 17 and April 3, 2003 BonTerra Consulting biologists conducted biological field reconnaissance at the City of Los Angeles Department of Water and Power's Santa Ynez Canyon Reservoir project site.

The Santa Ynez Canyon Reservoir facility covers approximately 57.9 acres in the Pacific Palisades area of the City of Los Angeles. The physical structure of the reservoir is an earth fill dam and asphalt concrete lined reservoir that began service in December 1970. Land uses proximal to the current Santa Ynez Canyon Reservoir facility include: Santa Ynez Creek, open space associated with Topanga State Park, single- and multi-family residential, commercial/retail, roadway, and urban park. The project site is located within the U.S. Geological Survey's Topanga 7.5-minute quadrangle. Elevations within the boundaries of the Santa Ynez Canyon Reservoir facility range between approximately 600 feet and 900 feet above mean sea level (msl).

SURVEY METHODS

BonTerra Consulting conducted a search of available literature to identify special status plants, wildlife, and habitats known to occur in the vicinity of the project site. The California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2003b) and a compendia of special status species published by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) were reviewed. In addition, CDFG's California Natural Diversity Database was reviewed prior to the site visit (CDFG, 2003b).

The biological reconnaissance surveys were conducted to describe the vegetation present within the proposed alignment and to evaluate the actual or potential for the habitats observed to support special status plant and wildlife species. Project delays and alignment changes allowed for follow up visits within the proposed alignment, including this Spring. The qualitative potential for the habitat or substrates identified to support special status plant and wildlife species was estimated based upon observations made on the site. All plant and wildlife species observed were noted. Plant species were identified in the field or collected for future identification. Plants

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were identified using keys in Hickman (1993), Munz (1974), and Abrams (1923, 1960). Taxonomy follows Hickman (1993) and current scientific data (e.g., scientific journals) for scientific and common names. Roberts (1998) was used for common names when none were listed in Hickman (1993). The Sunset Western Garden Book (Brenzel, 1995) was used for ornamental species that were not included in the references listed above. The List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base (CDFG 2003b) was generally used to classify vegetation types.

Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris, where appropriate. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic sign, including scat, footprints, scratch-outs, dust bowls, burrows, and trails. Taxonomy and nomenclature for wildlife generally follows Fisher and Case (1997) for amphibians and reptiles, American Ornithologists Union (1998) for birds, and Jones *et. al* (1992) for mammals.

SURVEY RESULTS

Vegetation

Vegetation and habitats identified on the site during the site visit are generally described in the following paragraphs. The proposed construction footprint is characterized by hardscape development, landscaping and ornamental vegetation, and ruderal vegetation. The upland slopes immediately to the adjacent slopes are dominated by toyon-sumac chaparral. The off-site chaparral is dominanted by toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia*), California lilac (*Ceanothus* spp.), poison oak (*Toxicodendron diversilobum*), black sage (*Salvia mellifera*), and bush monkeyflower (*Mimulus aurantiacus*).

An apparently natural drainage (Santa Ynez Creek) was observed in the bottom of Santa Ynez Canyon below dam outside the facility boundaries. This drainage appears to support elements of willow (*Salix* sp.) dominated riparian woodland habitat that also contains scattered alder (*Alnus rhombifolia*) and sycamore (*Platanus racemosa*), both species that may comprise southern sycamore alder riparian woodland habitat. Also identified within the banks of the drainage and the canyon walls were scattered southern California black walnut (*Juglans californica* var. *californica*). The walnut trees observed did not appear in sufficient density to define the California walnut woodland habitat community.

Vegetation types were not mapped for this memorandum.

Wildlife Habitat

Vegetation and habitat types within the Santa Ynez Canyon Reservoir site boundaries generally provides low quality habitat for native wildlife species. The dominant habitats outside of the facility boundaries is toyon-sumac chaparral and riparian woodland. Common bird species observed or expected to occur outside of the facility boundaries, but in the project area, include red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), western scub jay (*Aphelocoma californica*), and wrentit (*Chamaea fasciata*). Amphibian species were not observed, though have a potential to occur within Santa Ynez Creek. Common reptile species observed include western fence lizard (*Sceloporus occidentalis*) and side-blotched lizard (*Uta stansburiana*). Some of the common mammal species observed or expected to occur on the project site include Virginia opossum (*Didelphis virginianus*), California ground squirrel (*Spermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*). No fish species are expected within the facility boundaries, though some potential exists downstream in Santa Ynez Creek outside of the facility boundaries.

Special Status Habitat

Special status habitats are considered to be "depleted" habitats by the CDFG (CDFG, 2003b). Under certain circumstances, special status habitats are protected by ordinance, code, or regulation under which conformance typically requires a permit or other discretionary action prior to impacting the habitat. There are records of two special status habitats within the proposed project area, California walnut woodland and southern sycamore alder riparian woodland. Neither California walnut woodland nor southern sycamore alder riparian woodland were observed within the Santa Ynez Reservoir facility boundaries, though elements of these habitats (e.g., individual species that, in larger numbers, define the habitat) were observed outside of the facility boundaries within the bed and bank of Santa Ynez Creek downstream from the existing reservoir.

Impacts to drainages (streams, washes, or rivers), marshes, ponds, and lakes that meet the definition of wetlands and/or "waters of the United States" are typically regulated under Section 404 of the federal Clean Water Act and, under the jurisdiction of the U.S. Army Corps of Engineers (ACOE). Jurisdictional wetlands are areas that concurrently meet all three wetland criteria (e.g., dominance of hydrophytic vegetation, appropriate hydrology, and hydric soils). Waters of the United States include navigable coastal and inland waters, lakes, rivers, and streams, and their tributaries, interstate waters and their tributaries, wetlands adjacent to such waters, intermittent streams, and other waters that could affect interstate commerce. In addition, if drainages meet the criteria established by Section 1600 of the California Fish and Game Code, a Streambed Alteration Permit may be required by CDFG prior to any modification of the bed, bank, or channel of streambeds. No ACOE or CDFG regulated wetlands, waters, or streams were observed within the proposed Santa Ynez Canyon Reservoir modification project footprint during the biological reconnaissance and none are expected to occur due to the absence of diagnostic vegetation, hydrology, and soils within this area. Any impacts to Santa Ynez Creek outside of the currently proposed footprint, however, would be regulated by the ACOE and the CDFG. Again, however, this drainage exists outside of the proposed project footprint and is not expected to be affected by the project.

Special Status Plant and Wildlife Species

Plants or wildlife may be considered to have "special status" due to declining populations, vulnerability to habitat change, or restricted distributions. Special status species are those species that have been listed as Threatened or Endangered under state and/or federal Endangered Species Acts (ESA) or are of concern to state and/or federal resource agencies or private conservation organizations.

Plant Species

Several special status plant species are known to occur in the project region and those species currently listed by the federal and/or state resource agencies as Threatened or Endangered have been summarized in Table 1. This list is the result of a database and literature search and site reconnaissance.

TABLE 1
THREATENED/ENDANGERED PLANT SPECIES
KNOWN TO OCCUR IN THE PROJECT REGION

Species	Status			Likelihood for Occurrence
	USFWS	CDFG	CNPS	
Astragalus brauntonii Braunton's milk-vetch	FE	—	LIST 1B	This species occurs in closed-cone coniferous forest, chaparral, coastal sage scrub, and grassland habitats associated with carbonate soils. Not observed; extremely limited potential to occur due to lack of potential habitat or substrate on-site.
Astragalus pycnostachyus var. *lanosisimus* Ventura marsh milk-vetch	FE	SE	LIST 1B	This species occurs in coastal dunes and the edges of coastal salt marshes and swamps. It was not observed and has no potential to occur due to lack of potential habitat or substrate.
Astragalus tener var. *titi* coastal dunes milk-vetch	FE	SE	LIST 1B	This species occurs in coastal dunes, coastal bluff scrub and coastal prairie. It was not observed and has no potential to occur due to lack of potential habitat or substrate.
Atriplex parishii Parish's brittlescale	—	—	LIST 1B	This species occurs in chenopod scrub, playas and vernal pools. It was not observed and has no potential to occur due to lack of potential habitat or substrate.
Calochortus plummerae Plummer's mariposa lily	SOC		LIST 1B	This species occurs in chaparral, cismontaine woodland, coastal sage scrub, lower montaine conifereous forest and grasslands in granitic and rocky soils. It was not observed and has extremely limited potential to occur due to lack of potential habitat or substrate, though it has a moderate potential to occur in the project area.
Centromadia parryi ssp. *australis* southern tarplant	—	—	LIST 1B	This species occurs in the margins of marshes, seasonally wet grasslands, and vernal pools. This species was not observed and has no potential to occur due to a general lack of suitable habitat or substrate.
Cordyanthus maritimus ssp. *maritimus* salt marsh bird's-beak	SOC	ST	LIST 1B	This species occurs in coastal salt marshes and coastal dunes. This species was not observed and has no potential to occur due to a general lack of potential habitat or substrate.
Dithyrea maritima beach spectaclepod	SOC	ST	LIST 1B	This species occurs in coastal dunes and coastal sage scrub associated with sandy soils. It was not observed and has no potential to occur due to lack of potential habitat or substrate.
Dudleya cymosa ssp. *ovatifolia* Santa Monica Mountains dudleya	FT	—	LIST 1B	This species occurs in chaparral and coastal sage scrub habitats (often associated with volcanic soils). This species was not observed and has a limited potential to occur due to a general lack of potential habitat or substrate.

TABLE 1 (continued)
THREATENED/ENDANGERED PLANT SPECIES
KNOWN TO OCCUR IN THE PROJECT REGION

Species	Status			Likelihood for Occurrence
	USFWS	CDFG	CNPS	
Dudleya multicaulis many-stemmed dudleya	—	—	LIST 1B	This species occurs in chaparral, coastal sage scrub, and grassland habitats (often associated with clay soils). This species was not observed and has a limited potential to occur due to a general lack of potential habitat or substrate.
Nama stenocarpum mud nama	—	—	LIST 2	This species occurs in the margins of marshes, lakes and rivers. This species was not observed and has a limited potential to occur due to lack of potential habitat or substrate, though this species has low to moderate potential to occur in the margins of Santa Ynez Creek outside of the facility boundaries..
Sidalcea neomexicana Salt Spring checkerbloom	—	—	LIST 2	This species occurs in chaparral, coastal sage scrub, lower montaine coniferous forest, Mohavean desert scrub and playas, generally in alkaline substrates. This species was not observed and has extremely limited potential to occur due to lack of potential habitat or substrate.

LEGEND

Federal (USFWS)

FE	Endangered
FT	Threatened
PE	Proposed Endangered
PT	Proposed Threatened
CAN	Candidate
SOC	Species of Concern

State (CDFG)

SE	Endangered
ST	Threatened
PE	Proposed Endangered
PT	Proposed Threatened

California Native Plant Society (CNPS)

List 1A	Plants Presumed Extinct in California
List 1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
List 2	Plants Rare, Threatened, or Endangered in California But More Common Elsewhere
List 3	Plants About Which We Need More Information – A Review List
List 4	Plants of Limited Distribution - A Watch List

Wildlife Species

Several special status wildlife species are known to currently or to have historically occurred in the project region. Some of which have some potential to occur in the immediate vicinity of the project site.

TABLE 2
SPECIAL STATUS WILDLIFE SPECIES KNOWN TO OCCUR IN THE PROJECT REGION

Species	Status		Likelihood of Occurrence
	USFWS	CDFG	
Invertebrates			
Neduba longipennis Santa Monica shieldback katydid	—	—	This species occurs nocturnally in chaparral and canyon stream bottom vegetation in the Santa Monica Mountains. It appears to prefer introduced iceplant. Not observed; limited potential to occur due to lack of potential habitat.
Coelus globosus Globose dune beetle	SOC	—	This species occurs in coastal sand dune habitat, particularly foredunes and hummocks where it burrows beneath the sand surface and vegetation (where it is commonly observed). This species was not observed; no potential to occur due to lack of potential habitat.
Danaus plexippus Monarch butterfly	—	—	This species occurs in open fields with milkweed and other nectar sources in the spring and summer; roosts are located in wind protected tree groves along the coast in winter. Eucalyptus trees provide suitable roosting habitat. This species was not observed; limited potential to occur due to lack of potential habitat.
Fish			
Oncorhynchus mykiss irideus southern steelhead	FE (So. Calif. ESU)	SSC	Southern steelhead are winter-run steelhead that persist in streams that have warm, dry lower reaches on the coastal plain, which present substantial migration passage problems to and from distant headwater spawning and rearing habitats. Most coastal streams from San Luis Obispo County southward are considered potential "southern steelhead streams" by the National Marine Fisheries Service (NMFS). Not observed; no potential to occur due to lack of potential habitat.
Reptiles			
Clemmys marmorata pallida southwestern pond turtle	SOC	SSC	Freshwater rivers, streams, lakes, ponds, vernal pools, and seasonal wetlands requiring water depths in excess of 2 m (6 feet) and basking sites such as logs, banks, or other suitable areas above water level. Requires permanent water source. Not observed; no potential to occur due to lack of potential habitat.
Phrynosoma coronatum blainvillei San Diego horned lizard	—	SSC	This species prefers open or sparse coastal sage scrub and chaparral and prefers loose, friable soil. This species was not observed; no potential to occur due to lack of potential habitat.
Aspidoscelis tigris stejnegeri coastal western whiptail	—	—	This species prefers open scrub, chaparral, and woodlands in semi-arid areas or in sunny microhabitats where vegetation is sparse. This species was not observed; extremely limited potential to occur due to lack of potential habitat.
Lampropeltis zonata pulchra San Diego mountain kingsnake	SOC	SSC	This species inhabits a variety of habitats including oak woodlands, coniferous woodland, chaparral, riparian, and wet meadows. This species was not observed and has extremely limited potential to occur due to lack of potential habitat.

LEGEND

Federal (USFWS)
- FE Endangered
- FT Threatened
- PE Proposed Endangered
- PT Proposed Threatened
- C Candidate Species
- SOC Species of Concern[1]

State (CDFG)
- SE Endangered
- ST Threatened
- PE Proposed Endangered
- PT Proposed Threatened
- SSC Species of Special Concern
- FP Fully Protected

Wildlife Movement

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967; Soule 1987; Harris and Gallagher 1989; Bennett 1990). Corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promotes genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move in their home ranges in search of food, water, mates, and other needs (Noss 1983; Farhig and Merriam 1985; Simberloff and Cox 1987; Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing" to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this analysis, these terms are defined as follows:

Travel Route–a landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas and provides a relatively direct link between target habitat areas.

Wildlife Corridor–a piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bound by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

Wildlife Crossing–a small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These often represent "choke points" along a movement corridor.

It is important to note that, in a large open space area in which there are few or no man-made or naturally occurring physical constraints to wildlife movement, wildlife corridors as defined above may not yet exist. Given an open space area that is both large enough to maintain viable populations of species and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others), wildlife will use these "local" routes while searching for food, water, shelter, and mates, and will not need to cross into other large open space areas. Based on their size, location,

vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-sized animals. This is especially true if the travel route is within a larger open space area. However, once open space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles such as roads and highways, the remaining landscape features or travel routes that connect the larger open space areas can "become" corridors as long as they provide adequate space, cover, food, and water, and do not contain obstacles or distractions (e.g., man-made noise, lighting) that would generally hinder wildlife movement.

Utility and public works easements and Right-of-Ways (ROWs) generally include electric transmission, pipeline, and flood-control channels that consist of real property owned by the utilities or public works agencies as well as easements purchased or rented from the underlying real property owner. The proposed modifications to the Santa Ynez Canyon Reservoir would occur within areas previously disturbed during the original construction of the facility as well as ongoing operation and maintenance activities; therefore, virtually all wildlife movement that historically occurred through the area within the original facility boundaries has been constrained by existing reservoir. Though there is currently limited potential for wildlife, particularly migrating waterfowl, to temporarily rest within the reservoir when full, this is activity is discouraged. The denser stands of riparian habitat below the reservoir and further downstream within Santa Ynez Creek drainage provide greater opportunities for movement to wildlife.

CONCLUSIONS/RECOMMENDATIONS

The proposed construction, operation and maintenance activities associated with modifications to the Santa Ynez Reservoir are expected to be limited to the existing facility boundaries; furthermore, any necessary staging areas are expected to be located within an existing facility boundaries, as well.

The avoidance of any natural areas (in general) and Santa Ynez Creek (in particular) would result in the expectation that no impact would occur, therefore, no mitigation would be required.

Please contact me at (714) 444-9199 if you have any questions or comments.

Sincerely,

BONTERRA CONSULTING

Jeffrey C. Galizio
Senior Project Manager, Biological Services

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REFERENCES

Abrams, L. 1923. *Illustrated Flora of the Pacific States*, Volumes. I, II, and III. Stanford University Press, Stanford, California.

Abrams, L. 1960. *Illustrated Flora of the Pacific States.* Volume IV. Stanford University Press, Stanford, California.

American Ornithologists' Union. 1998. *Check-list of North American birds. 7th ed.* American Ornithologists' Union, Washington, DC.

Atwood, J.L. 1990. Status Review of the California Gnatcatcher (*Polioptila californica*). Manomet Bird Observatory, Manomet, Massachusetts.

Atwood, J.L. 1992. *Rare, Local, Little-Known, and Declining North American Breeders – A Closer Look.* Birding 25: 228-233.

Brenzel, K.N. Editor. 1995. *Sunset Western Garden Book.* Sunset Publishing Corporation, Menlo Park, California.

California Department of Fish and Game (CDFG). 2003a. *List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base*, Natural Heritage Division.

California Native Plant Society (CNPS). 2003a. *Electronic Inventory of Rare and Endangered Vascular Plants of California.* California Native Plant Society, Sacramento, California.

CDFG. 2003b. *California Natural Diversity (RareFind) Database* (CNDDB). California Department of Fish and Game, Natural Heritage Division, Sacramento, California.

CNPS. 2003b. *Inventory of Rare and Endangered Vascular Plants of California.* California Native Plant Society, Sacramento, California.

Farhig, L. and G. Merriam. 1985. *Habitat patch connectivity and population survival.* Ecology 66:1,792-1,768.

Fisher, Robert N. and T.J. Case. 1997. *A Field Guide to the Reptiles and Amphibians of Coastal Southern California.* Lazer Touch, San Mateo, CA. 45 pp.

Harris, L.D. and P.B. Gallagher. 1989. *New Initiatives for Wildlife Conservation; The Need for Movement Corridors.* Pages 11-34 in G. Mackintosh, ed. *Preserving Communities and Corridors.* Defenders of Wildlife., Washington, D.C. 96 pp.

Hickman, J.C. Editor. 1993. *The Jepson Manual Higher Plants of California.* University of California Press, Berkeley, California.

Hix, A.B. 1990. *Sensitivity of San Diego's Biological Resources: An Informational Report.* City of San Diego Planning Department. Development and Environmental Planning Division.

Holland, D.C. 1991. *Status and Reproductive Dynamics of a Population of Western Pond Turtles (Clemmys marmorata) in 1991.* Unpublished Report for the U.S. Fish and Wildlife Service, National Ecology Research Center, San Simeon, California.

Jones, J.K., R. Hoffmann, D. Rice, C. Jones, R. Baker, and M. Engstrom. 1992. *Revised checklist of North American Mammals North of Mexico*, 1991. Occasional Papers: The Museum of Texas Tech University. 23 pp.

MacArthur, R.H. and E.O. Wilson. 1967. *The Theory of Island Biogeography.* Princeton University Press. Princeton, New Jersey.

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

Noss, R.F. 1983. *A Regional Landscape Approach to Maintain Diversity.* BioScience 33:700-706. 1983.

Roberts, F.M. 1998. *A Checklist of the Vascular Plants of Orange County, California.* F.M. Roberts Publications, Encinitas, California.

Simberloff, D. and J. Cox. 1987. *Consequences and Costs of Conservation Corridors.* Conser. Biol. 1:63-71.

Soule, M.E. 1987. *Viable Populations for Conservation.* Cambridge Univ. Press, New York, N.Y.

Unitt, P. 1984. *The Birds of San Diego County.* San Diego Society of Natural History, Memoir 13, San Diego, California.

APPENDIX D
Paleontologic Assessment Report

SAN BERNARDINO COUNTY MUSEUM

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COUNTY OF SAN BERNARDINO
ECONOMIC DEVELOPMENT
AND PUBLIC SERVICES GROUP

ROBERT L. McKERNAN
Director

28 July 2003

Chambers Group, Incorporated
attn: Brant Brechbiel
17671 Cowan Avenue, Suite #100
Irvine, CA 92614

re: **PALEONTOLOGY LITERATURE AND RECORDS REVIEW, PROPOSED SANTA YNEZ RESERVOIR COVER PROJECT, SANTA MONICA MOUNTAINS, LOS ANGELES COUNTY, CALIFORNIA**

Dear Mr. Brechbiel,

The Division of Geological Sciences of the San Bernardino County Museum (SBCM) has completed a literature review and records search for the above-referenced development in the Santa Monica Mountains in Los Angeles County, California. The proposed project property is located in the northeastern quadrant of section 21 (projected), Township 1 South, Range 16 West, San Bernardino Base and Meridian, as seen on the Topanga, California 7.5' United States Geological Survey topographic quadrangle map (1952 edition, photorevised 1981).

Geologic mapping by Jennings and Strand (1969) indicates that excavation for the proposed Santa Ynez Reservoir Cover Project incise rocks of the fossiliferous Sespe Formation. This formation, first described by Watts (1897), is a continental deposit of fine-grained sandstones, shales, and conglomerates, with variegated sands and clays. The sediments of the Sespe Formation were deposited millions of years before the inception of the San Andreas Fault in what today would be Baja California. The ancient river headwaters responsible for deposition of the Sespe Formation are believed to be located in what today is central Arizona.

Early studies on the paleontologic sensitivity of the Sespe Formation noted the apparent lack of fossils in the deposit in Los Angeles and Ventura counties. Subsequent collection of fossils from the Sespe Formation north of Simi Valley was undertaken by the California Institute of Technology (CIT, records now at NHMLAC). Vertebrate fossils recovered from these and other localities in the Sespe Formation indicate a Uintan North American Land Mammal Age (Wood and others, 1941), extending the age of the early Sespe Formation into the Eocene Epoch. The Sespe Formation has yielded diverse and highly significant vertebrate fossil assemblages of great importance to the understanding of the evolution of mammals in the early Tertiary Eocene and Oligocene times. For example, the Tapo Ranch Local Fauna, identified from rocks of the Sespe Formation in the Simi Valley region, includes ten holotype specimens (species first described and named from specimens recovered at that locality).

Recent development-related paleontologic salvage in sedimentary exposures of the Sespe Formation in the Simi Valley region has yielded an abundant and diverse terrestrial vertebrate fauna dating to the late Eocene and early Oligocene Epochs (Kelly, 1990, 1992; Kelly and others, 1991). This fauna includes numerous new species of extinct primates, rodents and artiodactyls (Kelly, 1990, 1992). The plentiful nature and taxonomic variety of this assemblage demonstrate the continued high paleontologic sensitivity of this lithologic unit.

For this review, I conducted a search of the Regional Paleontologic Locality Inventory (RPLI) housed in the Division of Geological Sciences, SBCM. The results of this search indicate that no previously known paleontologic resource localities are recorded by the SBCM from within the boundaries of the study area, or from within several miles in any direction.

Recommendations

The results of the literature review and the check of the RPLI at the SBCM demonstrate that excavation in undisturbed sediments of the Sespe Formation has high potential to adversely impact significant nonrenewable paleontologic resources. Sediments from this rock unit have high paleontologic sensitivity. A qualified professional vertebrate paleontologist must therefore develop a plan to mitigate adverse impacts to paleontologic resources for this project. This mitigation program must be consistent with the provisions of the California Environmental Quality Act, as well as with regulations implemented by the County of Los Angeles and with the proposed guidelines of the Society of Vertebrate Paleontology. This plan should include, but not be limited to:

1. Monitoring of excavation in areas identified as likely to contain paleontologic resources by a qualified paleontologic monitor. Based upon the results of this review, areas of concern include any undisturbed surface or subsurface sediments of the Sespe Formation. The depth of proposed excavation and the degree of previous disturbance, if any, to rocks of the Sespe Formation were not assessed in this review. Paleontologic monitors should be equipped to salvage fossils as they are unearthed to avoid construction delays, and to remove samples of sediments which are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced if the potentially-fossiliferous units described herein are not present in the subsurface, or if present are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources.

2. Preparation of recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates.

3. Identification and curation of specimens into a professional, accredited museum repository with permanent retrievable storage. The paleontologist should have a written repository agreement in hand prior to the initiation of mitigation activities. Mitigation of adverse impacts to significant paleontologic resources is not complete until such curation into an established museum repository has been fully completed and documented.

4. Preparation of a report of findings with an appended itemized inventory of specimens. The report and inventory, when submitted to the appropriate Lead Agency along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will signify completion of the program to mitigate impacts to paleontologic resources.

References

Jennings, C.W. and R.G. Strand, 1969. Geologic map of California, Los Angeles sheet, scale 1:250,000. California Division of Mines and Geology Regional Geologic Map Series.

Kelly, T.S., 1990. Biostratigraphy of Uintan and Duchesnean land mammal assemblages from the middle member of the Sespe Formation, Simi Valley, California. Natural History Museum of Los Angeles County Contributions in Science #419. 42 p.

____, 1992. New Uintan and Duchesnean (Middle and Late Eocene) rodents from the Sespe Formation, Simi Valley, California. Bulletin of the Southern California Academy of Sciences 91(3): 97-120.

Kelly, T.S., E.B. Lander, D.P. Whistler, M.A. Roeder and B.H.A. Reynolds, 1991. Preliminary report on a paleontologic investigation of the lower and middle members, Sespe Formation, Simi Valley Landfill, Ventura County, California. PaleoBios 13(50): 1-13.

Watts, W.L., 1897. Oil and gas yielding formations of Los Angeles, Ventura, and Santa Barbara counties. California State Minerals Bureau Bulletin 11: 25-26.

Winterer, E.L., and D.L. Durham, 1954. Geology of southeastern Ventura Basin, Los Angeles County, California. United States Geological Survey Professional Paper 334-H, p. 275-366.

Wood, H.E., R.W. Chaney, J. Clark, E.H. Colbert, G.L. Jepsen, J.B. Reeside and C. Stock, 1941. Nomenclature and correlation of the North American continental Tertiary. Geological Society of America Bulletin 52: 1-48.

Please do not hesitate to contact us with any further questions you may have.

Sincerely,

Eric Scott, Curator of Paleontology
Division of Geological Sciences
San Bernardino County Museum

APPENDIX E
Noise Report

NOISE REPORT

Santa Ynez Reservoir
Water Quality Improvement Project

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Existing Setting

Background Discussion

Sound is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Typical human hearing can detect changes in sound levels of approximately 3 dBA under normal conditions. Changes of 1 to 3 dBA are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible.

Noise may be generated from a point source, such as a piece of construction equipment, or from a line source, such as a road containing moving vehicles. Because noise spreads in an ever-widening pattern, the given amount of noise striking an object, such as an eardrum, is reduced with distance from the source. This is known as "spreading loss." The typical spreading loss for point source noise is 6 dBA per doubling of the distance from the noise source. Caltrans notes that a spreading loss of 7.5 dBA is to be used for point source spreading over soft sites, such as undeveloped areas.

A line source of noise, such as vehicles proceeding down a roadway, will also be reduced with distance. Hard sites, such as developed areas with paving, reduce noise at a rate of 3 dBA per doubling of the distance while soft sites, such as undeveloped areas, open space, and vegetated areas reduce noise at a rate of 4.5 dBA per doubling of the distance. These represent the extremes and most areas will actually contain a combination of hard and soft elements with the noise reduction placed somewhere in between these two factors.

Objects that block the line-of-sight attenuate the noise source if the receptor is located within the "shadow" of the blockage (such as behind a sound wall). If a receptor is located behind the wall, but has a view of the source, the wall will do little to reduce the noise. Additionally, a receptor located on the same side of the wall as the noise source may experience an increase in the perceived noise level as the wall may reflect noise back to the receptor compounding the noise.

Several rating scales (or noise "metrics") exist to analyze adverse effects of noise, including traffic-generated noise, on a community. These scales include the equivalent noise level (L_{eq}), the community noise equivalent level (CNEL), and the day/night noise level (Ldn). L_{eq} is a measurement of the sound energy level averaged over a specified time period (usually one hour). L_{eq} represents the amount of variable sound energy received by a receptor over a time interval in a single numerical value. For example, a 1-hour L_{eq} noise level measurement represents the average amount of acoustic energy that occurred in that hour.

Unlike the L_{eq} metric, the CNEL noise metric is based on 24 hours of measurement. CNEL also differs from L_{eq} in that it applies a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when quiet time and sleep disturbance is of particular concern). Noise occurring during the daytime period (7:00 a.m. to 7:00 p.m.) receives no penalty. Noise produced during the evening time period (7:00 to 10:00 p.m.) is penalized by 5 dBA, while nighttime noise (10:00 p.m.

to 7:00 a.m.) is penalized by 10 dBA. The Ldn noise metric is similar to the CNEL metric except that the period from 7:00 to 10:00 p.m. receives no penalty. Both the CNEL and Ldn metrics yield approximately the same 24-hour value (within 1 dBA) with the CNEL being the more restrictive of the two.

Regulatory Environment

City of Los Angeles Noise Standards

The project site is located within the corporate boundaries of the City of Los Angeles. Noise impact analysis of the proposed project is, therefore, based on the standards contained in the "City of Los Angeles General Plan" (General Plan) and Noise Ordinances, as codified, in part, in Chapter XI (Noise Regulations) of the "City of Los Angeles Municipal Code" (Municipal Code or LAMC). In addition, Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited) of Chapter IV of the Municipal Code indicates that no construction or repair work shall be performed between the hours of 9:00 p.m. and 7:00 a.m. of the following day on any weekday, since such activities would disturb persons occupying sleeping quarters in any adjacent dwelling, hotel, apartment, or other place of residence. No person, other than an individual homeowner engaged in the repair or construction of his or her single-family dwelling, shall perform any construction or repair work of any kind before 8:00 a.m. or after 6:00 p.m. on any Saturday or at any time on any Sunday.

Section 112.05 of Chapter XI of the Municipal Code specifies the maximum noise level of powered equipment or powered hand tools. Any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA, measured at a distance of 50 feet from the machinery, is prohibited. However, these noise limitations do not apply when compliance is technically infeasible. "Technically infeasible" mean that the above referenced noise limitation cannot be complied with despite the use of mufflers, shields, sound barriers, and/or any other noise reduction device or techniques during the operation of equipment. Section 112.05 goes on to state that the noise limits for this equipment shall be superceded and replaced by noise limits for such equipment from and after final regulations adopted by the Federal Environmental Protection Agency and published in the Federal Register. At this time, federal regulation for construction equipment is limited to compressors.

With respect to an increase in noise due to project construction, the Draft LA CEQA Thresholds Guide (Thresholds Guide) indicates that a project would normally have a significant impact on noise levels if: (1) construction activities lasting more than one day would exceed ambient exterior noise by 10 dBA or more at a noise sensitive use; (2) construction activities lasting more than ten days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or (3) construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at anytime on Sunday.

Existing Conditions

The project consists of the placement of a floating cover on the Santa Ynez Reservoir. The project is located within the City of Los Angeles in a wilderness area surrounded by the Topanga State Park. Residential units are located to the north and east. The most proximate homes are located to the north. Construction equipment could operate as close as approximately 650 feet (in flat distance) to these homes. However, the intervening mountainous terrain effectively shields these residents from these construction activities reducing the noise level. Some residents to the east do have a partial view of the reservoir. The most proximate of these residents are located along the west side of Palisades Drive at a distance of about 1,000 feet. These residents are also subject to noise generated by traffic traveling along Palisades Drive.

To determine ambient noise levels in the project areas, a field visit was performed Tuesday, July 22, 2003. The field measurements revealed that the project is located in a fairly quiet area. Aircraft and traffic are the dominent sources of noise, though trappings of urban life (e.g., dogs barking) add to this noise.

Field Measurements

Noise monitoring was performed using a Quest Technologies Model 2900 Type 2 Integrating/logging Sound Level Meter. The unit meets the American National Standards Institute (ANSI) Standard S1.4-1983 for Type 2, International Electrotechnical Commission (IEC) Standard 651 - 1979 for Type 2, and IEC Standard 651 - 1979 for Type 2 sound level meters. The unit was field calibrated at 11:15 a.m. using a Quest Technologies QC-10 calibrator immediately prior to the first set of readings. The calibration was then rechecked at 1:45 p.m. after the readings and no meter "drift" was noted. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. The unit meets the requirements of ANSI Standard S1.4-1984 and IEC Standard 942: 1988 for Class 1 equipment.

The study included four noise readings to document ambient noise levels at and near the project site. The L_{eq}, L_{min}, L_{max}, L_{02}, L_{08}, L_{25}, and L_{50} values were recorded. As discussed above, the L_{eq} value is representative of the equivalent noise level or logarithmic average noise level obtained over the measurement period. The L_{min} and L_{max} represent the minimum and maximum root-mean-square noise levels obtained over a period of one second. The L_{02}, L_{08}, L_{25}, and L_{50} represent the values that are exceeded 2, 8, 25, and 50 percent of the time or 1, 5, 15, and 30 minutes per hour if the readings were extrapolated out to an hour's duration. Monitoring locations, as shown in Figure 1, where chosen to best represent the characteristics of potential noise sensitive uses/receptors[1] closest to the proposed project. The results of the survey are included in Table 1. Each reading is summarized below.

NR-1 - This reading was obtained to document levels at the reservoir, but the most proximate residential units located away from the roadways would show similar values. The meter was located within Santa Ynez Canyon Park at the chain link gate that leads to the reservoir. The 15-minute reading was obtained from 11:31 a.m. The major

[1] Per the Noise Element of the General Plan of the City of Los Angeles, a "noise sensitive use" includes: residential, schools, libraries, churches, hospitals, auditoriums and outdoor recreation land use areas.

Scale: = 400 feet

Source: Chambers Group Inc., 2003

3031-39106-RT.DRAFT 10/22/2003

LOS ANGELES DEPARTMENT OF WATER AND POWER
SANTA YNEZ RESERVOIR WATER QUALITY IMPROVEMENT PROJECT

Noise Reading Locations

CDM

Figure 1

TABLE 1
NOISE LEVEL MEASUREMENTS FOR THE SANTA YNEZ RESERVOIR PROJECT

Monitoring Location	L_{eq} (dBA)	L_{02} (dBA)	L_{08} (dBA)	L_{25} (dBA)	L_{50} (dBA)	L_{min} (dBA)	L_{max} (dBA)
NR-1	43.7	49.7	46.9	43.8	42.1	37.9	54.7
NR-2	48.7	58.2	49.4	45.3	42.4	34.7	66.6
NR-3	41.9	49.3	44.8	41.6	39.8	34.8	56.8
NR-4	59.5	66.4	63.7	60.9	56.6	38.5	70.9

The L_{eq} represents the equivalent sound level and is the numeric value of a constant level that over the given period of time transmits the same amount of acoustic energy as the actual time-varying sound level. The L_{02}, L_{08}, L_{25}, and L_{50} are the levels that are exceeded 2, 8, 25, and 50 percent of the time, respectively. Alternatively, these values represent the noise level that would be exceeded for 1, 5, 15, and 30 minutes during a 1-hour period if the reading was extrapolated out to 1-hour's duration. The L_{min} and L_{max} represent the minimum and maximum root-mean-square noise levels obtained over a period of 1 second.

source of noise was from aircraft overflights, however background traffic and birdcalls also added to the measurement.

NR-2 – This reading was obtained to document ambient noise levels in the area of the Country Estates nearest Palisades Drive. This reading was obtained in the wooded area approximately 50 feet southwest of Vereda De La Montura. The meter was located approximately 15 feet below the grade of the road. The 15-minute reading began at 12:03 p.m. The primary source of noise was from vehicles traveling along Vereda De La Montura, but traffic on Palisades Drive was also audible. The Lmax is attributed to a passing refuse truck. Other sources of background noise included aircraft overflights and birdcalls.

NR-3 – This reading was obtained to document ambient noise levels at the Country Estates (behind the hill that separates the residents from sight of the reservoir). This reading was obtained in the wooded area approximately 200 feet south of Calle Del Jonela. The meter was located approximately 10 feet below the grade of the road. The 15-minute reading began at 12:46 p.m. The primary sources of noise were from aircraft overflights and birdcalls.

NR-4 – This reading was obtained to document ambient noise levels at the residents that would potentially most impacted by the proposed project. The reading was taken along the west side of Palisades Drive at the residential unit located at 1453 Palisades Drive. This location was approximately 200 feet north of Palisades Circle. The residence is located in a condominium complex. The meter was placed at a distance of 45 feet west of the Palisades Drive curb line. This distance corresponds with the approximate setback of the residence, though

some are slightly closer to the roadway (as close as approximately 35 feet from the curb line). The 15-minute reading began at 1:20 p.m. The primary source of noise was from vehicles traveling along Palisades Drive, but barking dogs and aircraft overflights were also audible.

The data indicate that the project area is fairly quiet away from the main roads. Because the significance thresholds in the Thresholds Guide are based on ambient CNEL levels, it is necessary to determine the CNEL at the noted receptor locations. Using the field readings, 24-hour noise levels may be *inferred* without 24-hour measurements or vehicle counts. The EMFAC2002 computer model distributed by the California Air Resources Board (CARB) breaks down traffic volumes by county and hour of the day. If one assumes that vehicle speeds remain fairly constant over the day, noise levels for any hour may be projected on a countywide basis. For example, the EMFAC2002 model notes that in the year 2003 in Los Angeles County, of the total daily traffic volume, 5.91 percent of the vehicles are on the road during the 11:00 a.m. to 12:00 p.m. hour, while 6.13 percent and 6.03 percent of the vehicles are on the road between 12:00 p.m. and 1:00 p.m., and 1:00 p.m. and 2:00 p.m., respectively. Because traffic and aircraft are the most prevalent sounds in the project area, ambient noise levels would follow daily traffic patterns. Based on these percentages, the noise attributed to vehicles traveling between 11:00 a.m. and 2:00 p.m. is calculated at approximately 2 dBA less than the 24-hour CNEL. Thus, it can be inferred that the CNEL due to traffic is approximately 2 dBA louder than the values measured in the field, which were representative of the 11:00 a.m. to 2:00 p.m. time period.

Under this assumption, based on noise readings NR-1 (43.7 dBA L_{eq}) and NR-3 (41.9 dBA L_{eq}), the CNEL at the quietest residential rear yards to the north along Calle Del Jonela is estimated at approximately 45 dBA. Depending on the locations of such things as swimming pool equipment (i.e., pump noise), air conditioning units, landscape maintenance, barking dogs, etc., and presence of local trucks (e.g., refuse collection) actual CNEL noise could be somewhat greater. Residents located closer to the roads are estimated at levels closer to those observed during readings NR-2 (i.e., 48.7 dBA L_{eq}) and NR-4 (59.5 dBA L_{eq}).

Actually, while reading NR-2 was obtained approximately 50 feet from the curb line of Vereda De La Montura, it was obtained in the forested area approximately 15 feet below the grade of the road and vehicles traveling on the road were not visible from the meter's location. In such cases, the shielding effect from the grade drop-off serves as a noise berm. Residents located at the grade of the road would not receive this shielding and noise levels could be about 5 dBA greater. Furthermore, some residents are located closer to the centerline of the road than the distance at which the reading was obtained. As such, noise at the residences along Vereda De La Montura, as well as those units located along Palisades Drive that do not actually have a view of the road, is estimated at about 55 dBA L_{eq} or about 57 dBA CNEL. The homes located more proximate to Palisades Drive could be subject to noise levels on the order of 62 dBA CNEL if located along the road.

Both the LAMC and Thresholds Guide notes that where the minimum ambient level is less than the "presumed" ambient level[2], the "presumed" ambient level is to serve as the minimum ambient level. The "presumed" ambient level for residential areas is 50 dBA

[2] The "presumed" ambient noise level is the noise level used when no ambient noise level has been taken or when the ambient noise level is measured at a level lower than the presumed ambient noise level for the representative zone, as provided in Section 111.03 of the Los Angeles Municipal Code (LAMC).

between the hours of 7:00 a.m. and 10:00 p.m. and 40 dBA between the hours of 10:00 p.m. and 7:00 a.m. Note that this equates to a CNEL value of 51.0 dBA. This value would only apply to the quietest yards in the project area. In cases where the actual ambient level exceeds the presumed ambient level, the actual ambient level is to be applied.

Environmental Impacts

The following discussion addresses impacts to noise per the Initial Study Checklist questions contained in Appendix G of the State CEQA Guidelines:

a) Exposure of persons to or generation of noise levels in excess of applicable standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact. The proposed project is located within the City of Los Angeles and is thus subject to the General Plan and noise ordinances incorporated therein. The project includes revisions to an existing reservoir. All noise associated with the project is related to the demolition of various portions of the existing reservoir and construction of the floating roof and appurtenant facilities. No noise is associated with the subsequent operation of the reservoir.

The applicable standards regarding construction noise in the City of Los Angeles are as previously discussed.

Noise levels associated with construction activities would be higher than the ambient noise levels in the project area today, but would subside once construction of the project is completed. Two types of noise impacts could occur during the construction phase. First, the transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. Even though there could be a relatively high single event noise exposure potential with passing trucks (a maximum noise level of 86 dBA at 50 feet), the increase in noise would be less than 1 dBA when averaged over a 24-hour period, and would therefore have a less than significant impact on noise receptors along the truck routes.

The second type of impact is related to noise generated by on-site construction operations and local residents could be subject to elevated noise levels due to the operation of this equipment. Construction activities are carried out in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise ranges to be categorized by work phase.

Table 2 presents typical noise levels produced from the use of construction equipment. Noise ranges have been found to be similar during all phases of construction, although the actual construction of structures typically results in less noise than site preparation activities. The grading and site preparation phase tends to create the highest noise levels because the noisiest construction equipment is found in the earthmoving equipment category. This category includes excavating machinery (backfillers, bulldozers, draglines, front loaders, etc.) and earthmoving and compacting equipment (compactors, scrapers, graders, etc.) Typical operating cycles may involve one or two minutes of full power operation followed by three to four minutes at lower power settings.

Noise levels at 50 feet from earthmoving equipment range from 73 to 96 dBA while L_{eq} noise levels range up to about 89 dBA. The later construction of the structures is somewhat reduced from this value.

TABLE 2
NOISE ASSOCIATED WITH TYPICAL CONSTRUCTION EQUIPMENT

Type of Equipment	Range of Sound Levels Measured (dBA at 50 feet)	Suggested Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers, 12,000-18,000 ft-lb/blow	81-96	93
Rock Drills	83-99	96
Jack Hammers	75-85	82
Pneumatic Tools	78-88	85
Pumps	68-80	77
Dozers	85-90	88
Tractor	77-82	80
Front-End Loaders	86-90	88
Hydraulic Backhoe	81-90	86
Hydraulic Excavators	81-90	86
Graders	79-89	86
Air Compressors	76-86	86
Trucks	81-87	86

Source: *Noise Control for Buildings and Manufacturing Plants*, Bolt, Beranek, and Newman, 1987

The Thresholds Guide indicates that a project would normally have a significant impact on noise levels if: (1) construction activities lasting more than one day would exceed ambient exterior noise by 10 dBA or more at a noise sensitive use; (2) construction activities lasting more than ten days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or (3) construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at anytime on Sunday. The project would be expected to last more than 10 days within a three-month period and the impact would be significant if its noise exceeded the ambient level by 5 dBA or more.

The Thresholds Guide also notes that construction located in excess of 500 feet from residential receptors generally does not create a significant impact.

Composite construction noise is best characterized by Bolt, Beranek, and Newman (United States Environmental Protection Agency, Bolt, Beranek, and Newman, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, PB 206717, December 31, 1971), as cited as the bases for assessing construction noise in the Thresholds Guide.

In their study, construction noise for public works projects is presented as 89 dBA L_{eq} when measured at a distance of 50 feet from the construction effort. This value takes into account both the number of pieces and spacing of the heavy equipment used in the construction effort. In later phases during cover assembly, noise levels are typically reduced from this value. However, as a worst-case scenario, the 89-dBA L_{eq} value is used to assess the impact of the construction effort.

The Thresholds Guide threshold value is based on an increase over the ambient noise level. The Thresholds Guide specify that this ambient level is to be in terms of the CNEL noise level. Because the criteria are based on CNEL, as opposed to L_{eq}, it is necessary to calculate the CNEL from the noted L_{eq} value. Construction is assumed to occur for a period of 8 hours a day and these values are logarithmically summed and divided by 24 hours in the day. In this case, the 89-dBA L_{eq} translates into an 84-dBA CNEL.

The nearest residential land uses are those located immediately north and east of the site with the nearest receptors (in the north, based on flat distance) being located approximately 650 feet from the nearest construction effort. Based on a direct line-of-sight, exterior noise from construction could be as high as 56 dBA CNEL[3] at this distance. Interior noise levels would be about 20 dBA less. The residents are shielded from construction noise by the intervening topography that effectively blocks the sight of the reservoir, and construction noise. Caltrans notes that any solid structure or berm that blocks the line-of-sight provides a minimum of 5 dBA[4] and as much as 23 dBA of noise reduction. Assuming the blockage provided by the intervening terrain provides only the 5-dBA minimum reduction, noise at the closest residents is estimated at 51 dBA CNEL. This level is equivalent to the 51 dBA CNEL presumed ambient level and therefore does not exceed the presumed ambient level by 5 dBA. As such, the impact is less than significant.

Residents located along Vereda De La Montura are further from the construction and subject to louder existing ambient levels. These residents are also shielded from view of the construction. As such, the impact to these residents is less than predicted for the more proximate residents and would also be less than significant.

Some residents located along Palisades Drive may have a direct view of portions of the construction effort. The most proximate of these residents are located approximately 1,000 feet from most proximate construction. Based on this distance, the exterior CNEL noise from site construction is estimated at 51 dBA CNEL. Ambient levels at these units are estimated at approximately 57 dBA CNEL and the impact is less than significant.

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[3] The typical spreading loss for point source noise is 6 dBA per each doubling of distance from the noise source (i.e., 100 feet, 200 feet, 400 feet, 800 feet, 1,600 feet, etc.). As used by the California department of Transportation (Caltrans), for soft sites (vegetated), such as the proposed project site, a spreading loss of 7.5 dBA is often used. Therefore, the resultant noise would be 84 dBA (construction noise in CNEL) minus approximately 28 dBA for distance for a total of about 56 dBA CNEL.

[4] Federal Highway Administration, *FHWA-RD-77-108, FHWA Highway Traffic Noise Prediction Model*, December 1978, and Caltrans, *Technical Noise Supplement*, October 1998.

However, even if ambient levels were less than the predicted value of 57 dBA CNEL, by definition they could not be lower than the presumed ambient level (i.e., 51 dBA CNEL) and the 51 dBA CNEL attributed to project construction would not exceed this value by 5 dBA. Therefore, the impact is less than significant and no mitigation is warranted.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Groundborne vibration is measured in terms of the velocity of the vibration oscillations. As with noise, a logarithmic decibel scale (VdB) is used to quantify vibration intensity. When groundborne vibration exceeds 75 to 80 VdB[5], it is usually perceived as annoying to building occupants. The degree of annoyance is dependent upon type of land use, individual sensitivity to vibration, and the frequency of the vibration events. Typically, vibration levels must exceed 100 VdB before any building damage occurs.

Excessive vibration is typically associated with blasting or pile driving activities, neither of which is anticipated in the construction of the cover. As a result, although construction of the proposed project would include use of heavy equipment, it is unlikely that construction would result in perceptible, let alone excessive, groundborne vibration or groundborne noise levels. Operation of the proposed project would be passive and does not cause groundborne vibration or noise. No significant impacts would occur and no mitigation is required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The project consists of the installation of a cover on an existing reservoir. Operation of the existing reservoir does not produce noise and no noise would result from covering the reservoir. Therefore, no substantial permanent increase in ambient noise levels would occur in the project vicinity above levels existing without the project.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. As discussed in item a) above, construction noise levels at and near the project site would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. Construction would generate an increase in ambient noise levels in the project vicinity. The exposure of persons to the periodic increase in noise levels would be short-term and do not exceed the criteria outlined in the Thresholds Guide and the impact is less than significant. Still, construction will be subject to the provisions specified in the City of Los Angeles Noise Ordinance.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located within an airport land use plan or in the immediate vicinity of any airport or private airstrip. At a distance of approximately 7.5 miles, the Santa Monica Airport represents the most proximate public use airport to the

[5] Federal Transit Administration, Office of Planning, *Traffic Noise and Vibration Impact Assessment, Final Report*, April 1995.

project. Therefore, the construction of the proposed project would not expose workers to excessive aircraft noise levels and no mitigation is necessary.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located within an airport land use plan or in the immediate vicinity of any airport or private airstrip. At a distance of approximately 7.5 miles, the Santa Monica Airport represents the most proximate public use airport to the project. Therefore, the construction of the proposed project would not expose workers to excessive noise levels and no mitigation is necessary.

References

Bass, Ronald E., Herson, Albert I. and Bogdan, Kenneth M., *CEQA Deskbook*, April 1999

California Air Resources Board, EMFAC2002 Computer Model, Version 2.2, September 23, 2002

Caltrans, *Technical Analysis Notes*, March 13, 1991

Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, October 1998

City of Los Angeles, Draft L.A. CEQA Threshold Guide, May 14, 1998.

City of Los Angeles, City of Los Angeles Municipal Code, Chapter XI, Noise Regulation, 1994.

U.S. Department of Housing and Urban Development, *A Guide to HUD Environmental Criteria and Standards Contained in 24 CFR Part 51*, August 1984

U.S. Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, Bolt, Beranek, and Newman, 1971