Scattergood-Olympic

TRANSMISSION LINE PROJECT

DRAFT ENVIRONMENTAL IMPACT REPORT

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Prepared by:

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

Technical Assistance Provided by:

POWER Engineers, Inc.
731 East Ball Road, Suite 100
Anaheim, CA 92805

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ACRONYMS AND ABBREVIATIONS

Abbreviation	Definition
μg/m^3	microgram per cubic meter
μT	microTesla
2LT	Dual Left Turn
ADOE	Archaeological Determinations of Eligibility
AEP	Association of Environmental Professionals
AHM	Acutely Hazardous Material
APE	Area of Potential Effect
BLM	Bureau of Land Management
BMPs	Best Management Practices
BP	before present
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal EPA	California Environmental Protection Agency
Cal OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources
CBOC	California Burrowing Owl Consortium
CCC	California Coastal Commission
CCCC	California Climate Change Center
CCR	California Code of Regulations
CDE	California Department of Education
CDFG	California Department of Fish and Game
CDMG	California Department of Conservation, Division of Mines and Geology
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
CPHI	California Points of Historic Interest
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSC	California species of special concern
CSP	California special plant
CVC	California Vehicle Code
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibel scale
DEIR	Draft Environmental Impact Report
DHS	Department of Health Services

Abbreviation	Definition
DRP	Department of Regional Planning
DSA	Division of the State Architect
DTSC	Department of Toxic Substances Control
DY	Double Yellow
EIR	Environmental Impact Report
EMF	Electric and Magnetic Fields
EPA	Environmental Protection Agency
ESA	Endangered Species Act (see also FESA)
ESB	El Segundo Blue Butterfly
FE	Federal listed, endangered
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FT	Federal listed, threatened
G	Gauss
GHGs	Greenhouse gases
GIS	geographic information system
HHMD	Health and Hazardous Materials Division
HWCL	Hazardous Waste Control Law
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
kV	kilovolt
LABOE	Los Angeles Bureau of Engineering
LACoFD	Los Angeles County Fire Department
LADOT	Los Angeles Department of Transportation
LADWP	City of Los Angeles Department of Water and Power
LAFD	City of Los Angeles Fire Department
LAPD	City of Los Angeles Police Department
LASD	Los Angeles County Sheriff's Department
LAX	Los Angeles International Airport
LEAs	local educational agencies
LM	landscaped median
LOS	Level of Service
LST	Localized Significance Threshold
LULUCF	land-use, land-use change and forestry
MBAS	Methylene Blue Activated Substances
MBFD	Manhattan Beach Fire Department
MBPD	Manhattan Beach Police Department
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
mG	milliGauss
mg/m^3	milligram per cubic meter
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MP	metered parking
MRZ	Mineral Resource Zone
MSHCP	multi-species habitat conservation plan
MSL	mean sea level
MUN	Municipal or domestic water body
MVA	Megavolt-amperes
MW	megawatt
N-0	normal condition
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission

Abbreviation	Definition
NERC	North American Electrical Reliability Corporation
NHPA	National Historic Preservation Act
NIEHS	National Institute of Environmental and Health Sciences
NO_2	Nitrogen dioxide
NOA	Notice of Availability
NOC	Notice of Completion
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NP	No Parking
NPL	National Priorities List
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
NS	No Stopping
NSAT	No Stopping Anytime
NTU	Nephelometric turbidity units
O_3	Ozone
OEHHA	California Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHP	Office of Historic Preservation
Olympic RS	Olympic Receiving Station
OSHA	Occupational Safety and Health Administration
Pb	lead
PCBs	polychlorinated biphenyls
PM	Particulate Matter
PM_{10}	suspended particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$	fine particulate matter less than or equal to 2.5 microns in diameter
PMTP	paleontological resource mitigation plan
PNAs	polynuclear aromatic compounds
pphm	parts per hundred million
ppm	parts per million
PRC	Public Resources Code
PVC	polyvinyl chloride
Qa	Quaternary Alluvial Flood Plain Deposits
Qc	Quaternary Clay
Qf	Quaternary Recent Alluvial Fans
Qof/Qoa	Quaternary Older Alluvial Fan
Qsp	San Pedro Formation
RAS	Remedial Action Scheme
RCRA	Resource Conservation and Recovery Act
RM	Raised Median
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SE	State listed, endangered
SEAs	Significant Ecological Areas
SEATAC	SEA Technical Advisory Committee
SGS	Scattergood Generating Station
SMFD	Santa Monica Fire Department
SMPD	Santa Monica Police Department
SO_2	Sulfur dioxide
SOTLP	Scattergood-Olympic Transmission Line Project
SR 1	State Route 1

Abbreviation	Definition
SSC	California Species of Special Concern
ST	State listed, threatened
State Clearinghouse	Office of Planning and Research
SVP	Society of Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
T	Tesla
TACs	Toxic air contaminants
TMDLs	Total Maximum Daily Loads
TMP	Traffic Management Plan
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
USFS	U.S. Department of Agriculture, Forest Service
USFWS	U.S. Fish and Wildlife Service
V/m	volts per meter
WATCH	Work Area Traffic Control Handbook
WHO	World Health Organization
WRCC	Western Regional Climate Center
XLPE	cross-linked polyethylene insulation

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EXECUTIVE SUMMARY

ES.1 INTRODUCTION

In compliance with the California Environmental Quality Act (CEQA), the Los Angeles Department of Water and Power (LADWP) is the Lead Agency responsible for preparation of this Draft Environmental Impact Report (EIR) for the Scattergood-Olympic Transmission Line Project (SOTLP or Project). This EIR will inform the public and assist the needs of local and State permitting agencies to consider the Project.

LADWP is proposing to construct and operate approximately 11.4 miles of new 230 kilovolt (kV) underground transmission line that would connect the Scattergood Generating Station (SGS) and Olympic Receiving Station (Olympic RS). The Project would also include minor modifications to the SGS and Olympic RS to allow the new transmission line to connect into the stations. The Project would be located in Los Angeles, California. The addition of a new underground transmission line would enhance the reliability and operational flexibility of power transferred from the SGS to the Olympic RS.

ES.1.1 PURPOSE OF THE EIR

This EIR serves as an informational document for decision-makers and the public regarding potential environmental impacts of the proposed project. It will be used by LADWP and responsible agencies with approval authority for the proposed Project in assessing such impacts and their feasible mitigation. These agencies must take into account the information in this EIR before considering approvals for the proposed Project. This EIR is not a policy document of LADWP regarding the desirability of the proposed Project or any of the potential Project alternatives discussed herein.

ES.2 PROJECT OBJECTIVES

The proposed SOTLP would not increase generation, but accommodate the SGS's existing 830 megawatts (MW) of power with the following basic objectives:

- Enhance reliability and improve flexibility of the Scattergood Transmission System;
- Better utilize the energy produced from the SGS; and
- Comply with federally mandated standards.

ES.3 PROPOSED PROJECT

ES.3.1 LOCATION

The Project area is situated in the Los Angeles Basin, south of the Santa Monica Mountains, adjacent to the Pacific Ocean. The proposed underground transmission line alignment would be located in the cities of Los Angeles and Culver City, California. Portions of the proposed alignment would be adjacent to the cities of El Segundo and Santa Monica and the unincorporated community of Marina Del Rey. The SGS is located at 12700 Vista Del Mar, about one mile southwest of the Los Angeles International Airport (LAX). The Olympic RS is located at 1840 Centinela Avenue, approximately one mile northwest of the Interstate 10/Interstate 405 interchange.

The transmission line would be installed underground from the SGS in Playa Del Rey along Grand Avenue heading west, then would head northwest along Vista Del Mar, east onto Sandpiper Street, slightly north onto Pershing Drive, east on Westchester Parkway, north on Loyola Boulevard, northeast

on La Tijera Boulevard, northwest on Lincoln Boulevard, northeast on Culver Boulevard, northwest on Centinela Avenue and Bundy Drive, and west onto Olympic Boulevard, and terminate at the Olympic RS. Figure ES-1 illustrates the proposed alignment.

FIGURE ES-1. PROPOSED PROJECT

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ES.3.2 230 KV UNDERGROUND TRANSMISSION LINE

The proposed Project would consist of approximately 11.4 miles of 230 kV cable trenched underground within an eight-conduit, concrete-encased bank and maintenance vault system. The underground transmission line would be constructed using cross-linked polyethylene (XLPE) cables that consist of a copper conductor with plastic insulation, an external metallic covering for moisture protection, and an outer polyethylene jacket for corrosion protection.

Duct Bank

The transmission line cables would be installed in polyvinyl chloride (PVC) conduits, which would be encased within a concrete duct bank that is approximately 3.7 feet tall by 2 feet wide (44 inches by 24 inches). The duct bank would contain six 8-inch conduits and two 4-inch conduits. The transmission line cables would be placed within the bottom three 8-inch conduits, the top three would be vacant, and the 4-inch conduits would be used for communication cables associated with operation and monitoring of the transmission line. The typical trench for duct bank installation would be approximately three feet wide and six to seven feet deep. In highly congested areas or near the substation terminals, the configuration of the duct bank may be altered to clear substructures.

Maintenance Vaults

Maintenance vaults would be spaced approximately 1,000 to 1,500 feet apart along the proposed alignment. The vaults would be in precast sections with 12-inch-thick walls, and the inside dimensions would be approximately 30 feet long, 8 feet wide and 9 feet, 4 inches tall. They would be installed within the roadway, with each requiring an excavation a minimum of 34 feet long (including perimeter shoring), 12 feet wide, and 14 feet, 4 inches deep. The underground vaults would be three feet below the road surface and have two visible entrances on the street surface.

Right-of-Way

The proposed transmission line from SGS to Olympic RS is planned to be installed within existing streets. To cross Ballona Creek, a 400-foot section of the transmission line would be placed underneath the Lincoln Boulevard Bridge; the conduit bank would be anchored to one of the open bays on the underside of the bridge.

Temporary lane closures would be required to construct the underground transmission line and would be coordinated with other City Departments, such as the Los Angeles Bureau of Engineering (LABOE) and the Los Angeles Department of Transportation (LADOT).

ES.3.3 MINOR MODIFICATIONS TO STATIONS

Scattergood Generating Station

The existing SGS is an 830-MW generating facility that supplies power to the LADWP in-basin electrical transmission grid. Modifications within the developed footprint of the station would be required to accommodate the new 230 kV transmission line. Crews would access the substation via existing paved roads; no road upgrades are anticipated. Foundations for new structures within the substation would be excavated with a backhoe or auger. Cranes or similar equipment would then be used to erect the new steel structure pot head support rack and install other necessary hardware.

Olympic Receiving Station

LADWP's existing Olympic RS is a 640-megavolt-ampere (MVA) facility that supplies power to the western portion of Los Angeles, including the communities of Venice, Mar Vista, Palms, Westwood, Bel

Air, and Pacific Palisades. Modifications would be required within the developed footprint of the station to accommodate the new 230 kV transmission line. Crews would access the substation via existing paved roads; no road upgrades are anticipated. Foundations for new structures within the substation would be excavated with a backhoe or auger. Cranes or similar equipment would then be used to erect the new steel structure pot head support rack and install other necessary hardware.

ES.3.4 PROJECT CONSTRUCTION

The City of Los Angeles Rush Hour Ordinance limits in-street construction on weekdays to the hours of 9:00 a.m. through 3:30 p.m.; however, a variance to the Mayor's Executive Directive No. 2 to allow construction outside those times would be requested. The construction of the SOTLP is estimated to take approximately 18 to 24 months (with variance obtained). Typical construction hours would be Monday through Friday 7:00 a.m. to 5:00 p.m., and Saturday from 8:00 a.m. to 6:00 p.m. If a variance is not obtained, construction of the SOTLP would take approximately 36 months.

Construction would involve the following activities:

- Surveying of transmission line alignment, trench marking, and potholing;
- saw-cutting and pavement breaking;
- trenching of duct bank;
- excavation of maintenance vaults;
- conduit bank installation;
- maintenance vault installation;
- concrete and soil backfill;
- repaving;
- cable installation and splicing; and
- commissioning and testing.

To allow the new transmission line to connect into the SGS and Olympic RS, the following equipment would be required at each station: two 230 kV breakers, four disconnects, three current voltage transformers, three A-Frames and structural steel supports for station post insulators, and various types of cables, conductors, and hardware. Associated control, metering, and protection equipment would be installed in the control room.

An estimated total of up to ten separate construction crews would perform the trenching, vault installation, cable pulling, and splicing work, including one crew to perform the bore work, if needed. Each major construction activity would be performed by between one and six crews, and each crew would include two to ten crew members, for a total of approximately 60 to 120 personnel at any one time.

Up to two traffic lanes would be closed during construction. A Traffic Control Plan would be prepared to minimize disruption to traffic flow during construction.

ES.4 SUMMARY OF PUBLIC INVOLVEMENT ACTIVITIES

ES.4.1 NOTICE OF PREPARATION

In compliance with Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) was issued on October 8, 2010. The notice briefly described the proposed Project, Project location, environmental review process, potential environmental effects, and opportunities for public involvement. A map was also included that illustrated the study area boundary.

ES.4.2 PUBLIC SCOPING

The public scoping period commenced on October 8, 2010 with the issuance of the NOP and ended on November 12, 2010. Two public scoping meetings were conducted: October 26, 2010 in western Los Angeles and November 4, 2010 in Marina Del Rey.

ES.4.3 INFORMATIONAL PUBLIC MEETINGS

Although not required by CEQA, in an effort to solicit additional public input regarding the proposed Project and identification of preliminary routing alternatives for the proposed Project, two informational public meetings were conducted: February 23, 2011 in Los Angeles and February 24, 2011 in Marina Del Rey.

ES.5 AREAS OF CONTROVERSY/PUBLIC SCOPING ISSUES

Based on input received during the public scoping period and at the informational public meetings, concerns expressed by the public and agencies include: health and safety in relation to electromagnetic fields; hazards associated with subsurface utilities; and Project construction-related noise and traffic impacts.

ES.6 PROJECT ALTERNATIVES

This EIR evaluated alternatives to the proposed Project. Alternatives considered include transmission system alternatives, non-wire alternatives, and the No Project Alternative. An evaluation of a No Project Alternative is required under CEQA. The No Project Alternative would not create any impacts, temporary or permanent, since no construction activities for the proposed Project would occur. However, long-term impacts related to increased unreliability would remain. Since the No Project Alternative would not meet any of the project objectives, it would likely lead to the construction of a new transmission line, either overhead or underground, which would have impacts equal to or greater than the proposed Project.

The routing of transmission lines is somewhat flexible, and a number of routing options were considered. Alternative alignments were determined by applying routing criteria to various links within the study area. The routing criteria, developed with public input, included factors such as adjacent land uses and reliability and constructability of the transmission line. The Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments were suggested by the public during scoping. These alternative alignments would attain the objectives of the Project; however, neither of these alternative routing alignments would avoid or minimize impacts that would be generated by the proposed Project routing alignment. Therefore, the Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments were eliminated from detailed analysis in this Draft EIR.

ES.7 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Based on the Initial Study and issues raised during the NOP review period, the following environmental issues were associated with one or more potentially significant impacts of the proposed Project and are analyzed in this Draft EIR.

- Air Quality and Greenhouse Gas Emissions
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Hazards, Health, and Safety
- Noise

- Paleontology
- Traffic and Transportation
- Water Quality and Hydrology
- Electric and Magnetic Fields (EMF)

Resource analysis in the Draft EIR determined that impacts to Air Quality, Geology and Soils, Hazards, Health, and Safety, and Water Quality and Hydrology would be less than significant, and no mitigation would be required.

The following mitigation measures are proposed, for the respective resource topic, in this Draft EIR to avoid or minimize potentially significant impacts associated with the proposed Project.

ES.7.1 BIOLOGICAL RESOURCES

BIO-1: The proposed Project would not discharge groundwater to the Ballona Creek or Ballona Wetland habitat.

BIO-2: If construction activities on or around Lincoln Boulevard Bridge crossing over Ballona Creek are scheduled to occur during the breeding season (February 1 to August 31), preconstruction surveys for nesting birds shall be conducted. The preconstruction nest survey would include a visual examination of potential nest sites beneath the bridge.

If nesting birds are found, a buffer around the nest would be erected to ensure that Project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails due to non-Project related reasons.

Nesting opportunities on the underside of the bridge may also be limited by covering areas of the exposed bottom deck with temporary netting or removing unoccupied, inactive mud nests or partial nests that may be present from previous nesting attempts. A Project Biologist with nest deterrent experience will evaluate and accept proposed nest deterrent efforts prior to the start of nesting season (February 1).

ES.7.2 CULTURAL AND PALEONTOLOGICAL RESOURCES

Cultural Resources

CUL-1: Construction would be monitored by a qualified archaeologist during trenching and other ground-disturbing activities when that disturbance occurs in native soil, and any native soil that is removed will be made accessible to the archaeological monitor. Should previously unrecorded cultural resources be discovered during construction, construction would halt until the on-site cultural resource monitor and Native American monitor have had the opportunity to investigate the resource and assess its significance.

The portions of the route that would be monitored for cultural resources when construction occurs within native soils are:

- Vista Del Mar from Imperial Highway to Sandpiper Street;
- Sandpiper Street;
- W. Westchester Parkway between Pershing Drive and Stanmoor Drive;
- Lincoln Boulevard between 83rd Street and Culver Boulevard; and
- Culver Boulevard between Lincoln Boulevard and Centinela Avenue

CUL-2: Native American monitors shall observe construction-related ground disturbance in native soil within the areas specified in CUL-1.

CUL-3: Before the initiation of ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface cultural resources and protection of all cultural resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural resources.

Paleontological Resources

PR-1: Based on the location of highly sensitive underlying geologic formations, a qualified paleontologist shall be retained to design and implement a paleontological resource mitigation plan (PMTP). The qualified paleontologist shall attend relevant pre-construction meetings to consult with grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. The PMTP shall identify construction impact areas where high sensitivity paleontological resources may be encountered and the depths at which those resources are likely to occur. The PMTP shall outline a coordination strategy for monitoring, detail significance criteria used to determine data potential of resources, and describe methods of recovery, preparation, analysis, and final curation of specimens.

PR-2: A paleontological monitor shall be retained on a full-time basis to monitor Project-related excavations in areas underlain by formations of high sensitivity for paleontological resources. The areas deemed to have potential for presence of paleontological resources that shall be monitored during construction-related excavation include:

- Lincoln Boulevard between Jefferson Boulevard and 83rd Street
- Centinela Avenue between Ocean Park Boulevard and Venice Boulevard

PR-3: Before the initiation of ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological resources.

PR-4: When fossils are discovered, the qualified paleontologist (or paleontological monitor) shall recover them. In the instance of an extended salvage period, the paleontologist shall work with the construction manager to temporarily direct, divert, or halt earthwork to allow recovery of fossil remains in a timely manner. Because the potential for the recovery of small fossil remains, such as isolated mammal teeth, as determined by a qualified paleontologist, it may be necessary to collect bulk samples (up to 6,000 pounds) of sedimentary rock matrix.

PR-5: Fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, and cataloged as part of the mitigation program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited in a federally accredited repository for both vertebrate and invertebrate fossils such as the Natural History Museum of Los Angeles County or the Museum of Paleontology at the University of California, Berkeley. A final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

ES.7.3 NOISE

NOI-l: Within the city limits of Los Angeles, construction operations would not occur between the hours of 9:00 p.m. and 7:00 a.m.; in any residential zone, or within 500 feet of land so occupied, before 8:00 a.m. or after 6:00 p.m. on any Saturday; nor at any time on Sunday. Construction operations are also restricted in Culver City, but can occur between 8:00 a.m. and 8:00 p.m. Monday through Friday, 9:00 a.m. and 7:00 p.m. on Saturdays, and 10:00 a.m. and 7:00 p.m. on Sundays. These hours comply with local noise ordinances.

NOI-2: All noise-producing Project equipment and vehicles using internal combustion engines (including haul trucks) will be professionally fitted with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features. These devices will be professionally maintained in good operating condition so as to meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., air compressors) will be equipped with shrouds and noise control features that are readily available for that type of equipment.

NOI-3: Material stockpiles and mobile equipment staging, parking, and maintenance areas will be located as far as practicable from noise-sensitive receptors.

NOI-4: The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.

NOI-5: Electrically powered equipment instead of pneumatic or internal combustion-powered equipment will be used, where feasible.

NOI-6: No Project-related public address or music system will be audible at any adjacent receptor.

NOI-7: Within 10 days of commencement of construction, the Project applicant will provide notice of construction schedule to surrounding neighborhoods and will post information on the site in a location visible to the public, including the hours of operation and contact person with telephone number.

ES.7.4 TRAFFIC AND TRANSPORTATION

TR-1: Transportation Management Plans (TMPs). Prior to construction, a Traffic Management Plan (TMP) would be prepared and submitted to all agencies with jurisdiction of public roads that would be affected by the underground transmission line construction. TMPs would define the use of flag persons, warning signs, lights, barricades, cones, etc. according to standard guidelines outlined in the Caltrans Traffic Manual, the Standard Specifications for Public Works Construction, and the Work Area Traffic Control Handbook (WATCH).

ES.7.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS OF THE PROPOSED PROJECT

Section 15126.2(b) of the CEQA Guidelines requires the discussion of any significant environmental effects that cannot be avoided if a project is implemented. These include impacts that can be mitigated, but cannot be reduced to a less than significant level. An analysis of environmental impacts caused by the proposed Project has been conducted and is contained in Chapter 4 of this EIR. According to the environmental impact analysis, the proposed Project would result in significant unavoidable adverse impacts during construction related to noise generation. More specifically, and as codified at Chapter XI, Article 2, Section 112.05 of the Los Angeles Municipal Code, noise associated with equipment utilized to construct the proposed Project would exceed the threshold of 75 dBA at a distance of 50 feet from construction. A significant unavoidable adverse impact related to increased traffic during construction would also occur related to traffic and transportation. Please refer to Chapter 4, Section 4.2.6 (Noise) and Section 4.2.7 (Traffic and Transportation) for detailed discussion regarding potential equipment to be utilized for construction of the proposed Project and their respective anticipated noise levels resulting from Project construction at a distance of 50 feet from construction, and traffic and transportation impacts related to the construction of the proposed Project, respectively.

ES.7.6 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Public Resources Code section 21100(b)(2)(B) and section 15126.2(c) of the CEQA Guidelines require that an EIR analyze the extent to which a proposed project's primary and secondary effects would impact the environment and commit nonrenewable resources to uses that future generations would not be able to reverse.

The proposed Project would have various environmental impacts as presented in Chapter 4 of this EIR. The only significant immitigable impacts identified are associated with the construction phase of the Project—specifically noise and traffic impacts during Project construction. However, none of the impacts identified are significant or irreversible over the long term, nor would they result in permanent substantial changes in the environment.

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CHAPTER 1: INTRODUCTION/OVERVIEW

1.1 INTRODUCTION

In compliance with the California Environmental Quality Act (CEQA), the Los Angeles Department of Water and Power (LADWP) is the Lead Agency responsible for preparation of this Draft Environmental Impact Report (EIR) for the Scattergood-Olympic Transmission Line Project (SOTLP or Project). This EIR will inform the public and decision-makers at local and State permitting agencies of potentially significant impacts associated with the Project and identify means of reducing or eliminating those impacts.

LADWP is proposing to construct and operate approximately 11.4 miles of new 230 kilovolt (kV) underground transmission line that would connect the Scattergood Generating Station (SGS) and Olympic Receiving Station (Olympic RS). The Project would also include minor modifications to the SGS and Olympic RS to allow the new transmission line to connect into the stations. The Project would be located primarily in Los Angeles, with a small portion crossing through Culver City. The addition of a new underground transmission line would enhance the reliability and operational flexibility of power transferred from the SGS to the Olympic RS.

1.2 BACKGROUND

LADWP is the nation's largest municipal utility and serves approximately four million people. Its service territory covers the City of Los Angeles and certain parts of the Owens Valley. LADWP's electrical system consists of numerous generation stations, substations, and transmission and distribution lines. The electrical energy generated at a power plant or generation facility is carried through transmission lines to receiving stations in areas of electrical demand. Receiving stations "step down" the power to lower voltages for distribution to homes and businesses. Receiving stations also provide utility companies with the ability to connect and disconnect the transmission lines to and from the electrical system to perform maintenance and upgrades to the electrical system without disrupting service.

The SGS, an 830-megawatt (MW) generation facility with three conventional steam generation units (Units 1, 2, and 3), serves the western Los Angeles area. The power produced from the SGS is transferred to the western portion of LADWP's power grid through three transmission lines referred to as the Scattergood Transmission System. Figure 1.2-1 illustrates the location of the existing underground 230 kV Scattergood-Olympic Transmission line (dashed blue line) and two 138 kV Scattergood-Airport Lines (dashed orange lines). The Scattergood Transmission System's combined transfer capacity is 850 MW and barely accommodates the SGS's maximum output of 830 MW.

In 1970, LADWP proposed to construct two Scattergood-Olympic Transmission lines; however, only one transmission line (the existing 230 kV Scattergood-Olympic) was constructed and began commercial service in 1974. In recent years, routine testing of the transmission line have shown deterioration of the insulation, which could lead to outages that would negatively impact the reliability of service to the western Los Angeles area and severely limit power delivery from SGS.

FIGURE 1.2-1. SCATTERGOOD TRANSMISSION SYSTEM

LADWP is also currently in the planning stages of the Scattergood Generating Station Unit 3 Repowering Project, which would replace the SGS generation Unit 3 (SGS Unit 3) and physically and permanently derate (i.e., reduce the generation capacity of) SGS generation Unit 1 so the total generation capacity of SGS would stay the same. The SOTLP is needed whether or not SGS Unit 3 is repowered, which is on a separate timeline from the proposed Project. Therefore, it was determined that separate EIRs for the transmission line and repowering projects were appropriate under CEQA. The potential cumulative impacts of the Scattergood Generating Station Unit 3 Repowering Project and other projects in the vicinity are discussed in Chapter 4, Environmental Settings and Impacts.

In September 2009, an Initial Study/Mitigated Negative Declaration (IS/MND) was prepared for the construction and operation of the Scattergood-Olympic Line 1 Project (refer to Appendix A). The underground transmission line would run from the SGS west on Grand Avenue, northwest along Vista Del Mar and Vista Del Mar Lane, east along Manchester Avenue, north on Rayford Drive, west on 83rd Street, northwest on Lincoln Boulevard, east on Jefferson Boulevard, northwest on Inglewood Boulevard, west on National Boulevard, north on Armacost Avenue, west on Ocean Park Boulevard, north on Bundy Drive, west on Olympic Boulevard, and north on Centinela Avenue, and terminate into the Olympic RS. In response to comments received on the IS/MND, it was determined that the Project should undergo further review through the preparation of an EIR. The Project was renamed the Scattergood-Olympic Transmission Line Project. Scoping for the EIR was conducted in October and November 2010 and ongoing public involvement efforts were undertaken. The alignment addressed as part of the IS/MND was withdrawn from further consideration (refer to Chapter 3, Alternatives, for detailed discussion regarding the proposed Project routing alignment and other routing alignments considered as part of this EIR).

1.3 PROJECT OBJECTIVES

CEQA Guidelines Section 15126.6 (a) requires that alternatives to a proposed project must meet most of the basic project objectives. The purpose of the SOTLP is to accommodate the SGS's existing 830 MW of power with the following basic objectives:

- Enhance reliability and improve flexibility of the Scattergood Transmission System
- Better utilize the energy produced from the SGS
- Comply with federally mandated standards

1.3.1 ENHANCE RELIABILITY AND IMPROVE FLEXIBILITY

The current Scattergood Generating Station's maximum gross output is 830 MW. The addition of a redundant transmission line path from SGS to Olympic RS would allow the transfer of the maximum SGS output in a more sustainable manner. It would also allow LADWP to redirect power and perform maintenance on underground transmission lines without disrupting service or limiting the SGS output. Furthermore, implementing the proposed Project would reduce, or avoid, the need for emergency system repairs such as those that have occurred as a result of only having only one Scattergood-Olympic transmission line circuit in place.

1.3.2 BETTER UTILIZE ENERGY PRODUCED FROM SGS

The current SGS transmission system only marginally accommodates the power produced from the SGS. The SGS must operate with the Remedial Action Scheme (RAS) to protect the existing Scattergood Transmission circuits from severe overloads resulting from the loss of any single existing Scattergood Transmission System circuit. When any one of the three Scattergood transmission circuits relays, the remaining two circuits are subject to potentially damaging overloads unless Scattergood generation can be rapidly reduced. The purpose of the Scattergood RAS is to prevent overloading of the remaining Scattergood Transmission System lines by tripping generating units when failure of an existing transmission line occurs.

1.3.3 COMPLY WITH FEDERALLY MANDATED STANDARDS

The North American Reliability Council (NERC) regulates the reliability of the electric power grid for North America. Current standards require that utility companies meet the "N-1" reliability requirements for having sufficient generation and transmission resources to serve the energy needs of the power system at all times. The ability for electric utility companies to operate following the loss of any one major equipment unit (single contingency loss), such as a transmission line, is called "N-1" capability. In this instance, if a transmission line circuit is faulted or taken out of service, the electrical power flow automatically redirects to other system transmission lines, causing an increase in loading to the lines still in operation. The NERC standard requires utility companies to adequately accommodate such a situation without further exacerbating the loss of lines due to an electrical "overload" of the remaining transmission lines.

Currently, only one 230 kV transmission line connects the SGS to Olympic RS. The construction of the proposed SOTLP would create a second 230 kV line and comply with the "N-1" reliability requirements.

1.4 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Under the California Environmental Quality Act of 1970 (CEQA), as amended (Public Resources Code Section 21080(a)), an environmental review document must be prepared, reviewed, and certified by the decision-making body before action is taken on any non-exempt discretionary project proposed to be carried out or approved by a public agency in the state of California.

1.4.1 PURPOSE OF THE EIR

This EIR is an informational disclosure document for LADWP, responsible agencies, and other interested parties. This EIR will:

1) inform decision makers and the public of the potential environmental impacts that are expected to result from the construction, operation, and maintenance of the proposed Project;
2) determine ways to minimize or avoid significant effects; and
3) identify alternatives that may avoid or minimize potential significant impacts.

This Draft EIR will be distributed for review to responsible agencies, trustee agencies with resources affected by the Project, and other interested agencies and individuals. The City of Los Angeles Board of Water and Power Commissioners will consider the Final EIR, which includes the Draft EIR, comments received on the Draft EIR, staff responses to those comments, and any changes to the Draft EIR, before certifying the EIR and taking action on the proposed Project.

Reviews of the EIR should focus on the adequacy of the document in identifying and analyzing the potential environmental effects, determination of significance, and effectiveness of mitigation measures.

1.4.2 TERMINOLOGY USED IN THIS DOCUMENT

CEQA documents include the use of specific terminology. To aid the reader in understanding terminology and language used throughout this document, the following CEQA terms are defined below:

Project: The whole of an action that has the potential to result in a direct or indirect physical change in the environment.

Environment: The baseline physical conditions that exist in the area before commencement of the proposed project and that would be potentially affected or altered by the proposed project. The environment is where significant direct or indirect impacts could occur as a result of project

implementation, and it includes such elements as air, biological resources (i.e., flora and fauna), land, ambient noise, mineral resources, water, and objects of aesthetic or cultural significance.

Direct impacts: Impacts that would result in a direct physical change in the environment as a result of project implementation. Direct impacts would occur at the same time and place as the project.

Indirect or secondary impacts: Impacts that would result from proposed project implementation but that may occur later in time or farther removed in distance. Indirect or secondary impacts include growth-inducing impacts.

Significant impact on the environment: A substantial, or potentially substantial, adverse change in any of the physical conditions in the proposed project area that is the result of proposed project implementation. This can include substantial or potentially substantial adverse changes to air, biological resources (flora or fauna), land, water, minerals, ambient noise, and objects of cultural or aesthetic significance. An economic or social change may only be considered a significant impact on the environment if it results in a physical change.

Mitigation measures: Project-specific actions that, if adopted, avoid or substantially reduce the proposed project's significant environmental effects. Effective mitigation measures can:

- avoid the impact altogether;
- minimize the impact by reducing the degree or magnitude of the action and its implications;
- rectify the impact by repairing, rehabilitating, or restoring the affected environment;
- reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action; or
- compensate for the impact by replacing or providing substitute resources or environments.

Cumulative impacts: Two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts. The following statements also apply when considering cumulative impacts:

- The individual impacts may be changes resulting from a single project or a number of separate projects.
- The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over time.

Terms used in this document to describe the level of significance of adverse impacts are defined as follows:

Less than significant: An impact that is adverse but that falls below the defined thresholds of significance and does not require mitigation.

Significant: An impact that exceeds the defined thresholds of significance. A significant impact would or could potentially cause a substantial adverse change in the environment and would require incorporation of feasible mitigation measures to eliminate the impact or reduce it to less than significant.

Significant and unavoidable: An impact that cannot be eliminated or lessened to a less-than-significant level through incorporation of mitigation measures.

1.5 PUBLIC REVIEW AND DECISION-MAKING PROCESS

CEQA requires lead agencies to solicit, record, and evaluate feedback from other agencies and the interested public to aid decision-making. Additionally, CEQA requires the Project to be monitored after it has been permitted to ensure that mitigation measures are implemented, as appropriate.

Public and agency participation in the CEQA process for the proposed Project has and will continue to occur through the steps described below.

1.5.1 NOTICE OF PREPARATION

In compliance with Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) was issued on October 8, 2010. The notice briefly described the proposed Project, Project location, environmental review process, potential environmental effects, and opportunities for public involvement. A map was also included that illustrated the Study Area boundary.

Copies of the NOP were mailed to the Office of Planning and Research (State Clearinghouse) for issuance to State agencies. It was also mailed to agencies, organizations, local governments, and other parties known to be interested in the Project. The NOP solicited input regarding the scope and content of the environmental information to be included in the EIR, as well as siting criteria for an underground transmission line.

The public comment period for the NOP began on October 8, 2010 and ended on November 12, 2010.

1.5.2 PUBLIC SCOPING MEETINGS

Pursuant to Section 15082(c)(1) of the CEQA Guidelines, two public scoping meetings were conducted at the locations, dates, and times below.

October 26, 2010; 5:30 to 8:30 p.m.
West Los Angeles Municipal Building
1645 West Corinth Avenue
Los Angeles, CA 90025

November 4, 2010; 5:30 to 8:30 p.m.
Courtyard Marriot, Palos Verde Meeting Room
13480 Maxella Avenue
Marina Del Rey, CA 90292

1.5.3 INFORMATIONAL PUBLIC MEETINGS

Although not required by CEQA, and in an effort to solicit additional input from the public and agencies regarding the proposed Project, particularly input related to preliminary routing alternatives for the proposed Project, two informational public meetings were conducted at the locations, dates, and times listed below.

February 23, 2011; 6:30 to 8:30 p.m.
West Los Angeles Municipal Building
1645 West Corinth Avenue
Los Angeles, CA 90025

February 24, 2011; 6:30 to 8:30 p.m.
Courtyard Marriot, Palos Verde Meeting Room
13480 Maxella Avenue
Marina Del Rey, CA 90292

1.5.4 REVIEW OF DRAFT EIR

Upon completion of the Draft EIR, a Notice of Completion (NOC) was filed with the State Clearinghouse to begin the public review period (Public Resources Code [PRC], Section 21161).

This Draft EIR was distributed directly to agencies and organizations, and made publicly available for review and comment in accordance with Section 15087 of the CEQA Guidelines and PRC 21092(b)(3). The Draft EIR and the studies upon which it is based are available for review at the locations shown in Table 1.5-1.

TABLE 1.5-1. DOCUMENT REPOSITORY SITES

Repository Site	Address
Los Angeles Department of Water and Power	111 N. Hope Street, Room 1044, Los Angeles CA 90012
Los Angeles Public Library, West Los Angeles Regional Branch	11360 Santa Monica Boulevard, Los Angeles CA 90025
Los Angeles Public Library, Mar Vista Branch	12006 Venice Boulevard, Los Angeles CA 90066
Los Angeles Public Library, Westchester-Loyola Village Branch	7114 W. Manchester Avenue, Los Angeles CA 90045
Los Angeles Public Library, Playa Vista Branch	6400 Playa Vista Drive, Los Angeles CA 90094
El Segundo Public Library	111 W. Mariposa Avenue, El Segundo CA 90245

The Draft EIR is also available for review online at http://www.ladwp.com/Scattergood-Olympic. Organizations and interested members of the public are invited to comment on the information presented in this Draft EIR during the 45-day public review period.

1.5.5 PREPARATION AND CERTIFICATION OF FINAL EIR AND MMRP

Comments received and responses to those comments, along with any corrections needed in the Draft EIR, will be incorporated into the Final EIR. In addition, Section 15097 of the CEQA Guidelines requires that public agencies adopt a program for monitoring mitigation measures that reduce or eliminate significant impacts on the environment. Accordingly, a Mitigation Monitoring and Reporting Program (MMRP) will be prepared for the proposed Project.

The Board of Water and Power Commissioners will consider and certify the Final EIR before making a decision whether or not to approve the Project.

1.6 EIR FORMAT AND CONTENT

CEQA Guidelines provide that each EIR contain certain essential elements of discussion. Table 1.6-1 identifies each element that must be included in this EIR along with a reference to the corresponding section where the elements are discussed.

TABLE 1.6-1. REQUIRED EIR DISCUSSION ELEMENTS

CEQA Required Element	Chapter/Section of EIR
Table of Contents (Section 15122 of the CEQA Guidelines)	Table of Contents
Summary (Section 15123 of the CEQA Guidelines)	Executive Summary
Project Description (Section 15124 of the CEQA Guidelines)	Chapter 2
Alternatives to the Proposed Project (Section 15126 of the CEQA Guidelines)	Chapter 3

CEQA Required Element	Chapter/Section of EIR
Environmental Setting (Section 15125 of the CEQA Guidelines) Environmental Impact Analysis (Section 15126 of the CEQA Guidelines) • Significant Environmental Effects • Significant Environmental Effects That Cannot be Avoided • Mitigation Measures Cumulative Impacts (Section 15130 of the CEQA Guidelines) Effects Found Not to be Significant	Chapter 4
Long Term Implications of the Proposed Project (Section 15126.2 of the CEQA Guidelines) • Significant Irreversible Environmental Changes • Growth-Inducing Impacts	Chapter 5
List of Organizations, Agencies and Persons Consulted and List of Preparers (Section 15129 of the CEQA Guidelines)	Chapter 6
References (Section 15129)	Chapter 7

The contents of this EIR are organized in the following manner.

Executive Summary: The Executive Summary of the EIR provides the reader an opportunity to understand the entire Project and its implications in a summary form. The Executive Summary includes a brief description of the Project, a summary of environmental impacts and mitigation measures, a summary comparison of the Project alternatives, and a description of areas of controversy.

Chapter 1. Introduction: The Introduction describes the purpose of CEQA and the EIR, common terminology that is used in an EIR, the public review and the decision-making process, and the format and content of the EIR. The introduction also identifies the lead and responsible agencies, discretionary actions required for the Project, and contact person for the EIR.

Chapter 2. Description of the Proposed Project: This chapter describes the objectives to be achieved by the proposed Project, as well as the location and characteristics of the Project. Construction and operational aspects of the Project and relevant background information are also included.

Chapter 3. Alternatives to the Proposed Project: This chapter addresses the alternatives screening criteria, alternatives to the Project, and the No Project Alternative.

Chapter 4. Environmental Analysis: This chapter of the EIR includes a description of the existing environmental conditions and regulatory setting for each resource area analyzed, thresholds of significance for impact determination, and an analysis of potentially significant impacts. Mitigation measures that may reduce the magnitude of significant impacts, cumulative impacts, and residual impact (impact after implementation of mitigation measures) are also identified.

Chapter 5. Other CEQA Considerations: This chapter describes the long-term implications of the proposed Project, including significant irreversible environmental changes, growth-inducing impacts, and significant and unavoidable impacts of the proposed Project as per the requirements of CEQA.

Chapter 6. Public and Agency Consultations: This chapter describes the public outreach efforts by LADWP. It includes a list of agencies and persons consulted, as well as a list of preparers of the EIR.

Chapter 7. References: This chapter lists reference materials used to compile the EIR.

Appendices: The NOP, technical reports and studies, and other relevant information are included as appendices. The appendices are contained in a separate volume.

1.7 LEAD AGENCY DISCRETIONARY ACTIONS

The City of Los Angeles Board of Water and Power Commissioners has the primary governmental authority for the approval of the proposed Project. As such, LADWP is the Lead Agency responsible for preparation of the EIR to assess and disclose the environmental consequences associated with Project implementation. Additional discretionary actions will also be required and are listed in Table 1.7-1 below. This Project is a public utility improvement project that would meet the increased demand of existing customers in order to maintain the existing standard of service; therefore, it is exempt from the requirements of the Coastal Act and does not require a Coastal Development Permit. In March 2009, LADWP submitted a request for exemption from the requirement to obtain a permit under the Coastal Act; this request was granted by the California Coastal Commission on April 7, 2009 (refer to Appendix B). Since that time, the routing alignment of the proposed Project within the Coastal Zone has changed, as has the Project description. LADWP has submitted a request to the California Coastal Commission to amend the originally issued exemption; LADWP will obtain approval from the California Coastal Commission prior to initiating Project construction within the Coastal Zone.

TABLE 1.7-1. AUTHORIZATIONS, PERMITS, AND APPROVALS

Triggering Action	Permit/Approval	Accepting Authority/Approving Agency	Statutory Reference
STATE OF CALIFORNIA			
Proposed construction, operation, and maintenance may occur across or within California highway rights-of-way	Encroachment Permit	California Department of Transportation, Los Angeles County	California Vehicle Code, Division 1, Chapter 3; Division 2, Chapters 2.5 and 5.5; Division 6; Chapter 7; Division 13; Chapter 5; Division 14.1; Chapters 1 and 2; Divisions 14.8 and 15
Proposed construction may involve storm water discharges to surface waters of the State	General Discharge Permits for Storm Water Associated with Construction Activity, National Pollutant Discharge Eliminations System Stormwater Permit	State Water Resources Control Board – Los Angeles Regional Water Quality Control Board	Federal Clean Water Act, Section 402
LOCAL			
Proposed trenching and excavation within local roadway.	Excavation "U" Permit	City of Los Angeles Bureau of Engineering	

1.8 INCORPORATION BY REFERENCE

Section 15150 of the CEQA Guidelines encourages incorporation by reference to reduce the size of an environmental report. Listed below are the documents incorporated by reference into this Draft EIR, along with a brief description of the scope and content of these documents.

City of Los Angeles General Plan
The City of Los Angeles Citywide General Plan is a comprehensive, long-range declaration of policies and programs for the development of the City of Los Angeles. The General Plan is a dynamic document consisting of the following elements: nine city-wide elements and a land use element or plan for each of the City's 35 Community Planning Areas. The general plan elements include: framework; air quality; conservation; housing; noise; open space; service systems; safety; and transportation. The land use

element of the General Plan comprises 35 community plans. The Project area falls within the following community plans: LAX, Westchester-Playa Del Rey, Palms-Mar Vista-Del Rey, and West Los Angeles.

Los Angeles County General Plan
The Los Angeles County General Plan provides decision-makers with a policy framework to guide specific, incremental decisions to allow achievement of the General Plan's stated goals, objectives, and policies. It includes the following elements: conservation and open space; land use; housing; transportation; water and waste management; economic development; safety; noise; and scenic highways.

1.9 CONTACT PERSON

The primary contact person for this EIR is Ms. Julie Van Wagner. Her contact information is listed below:

Ms. Julie Van Wagner
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012
Scattergood-Olympic@ladwp.com
Toll-free phone line: (877) 735-8407
Fax: (213) 367-4710

CHAPTER 2: PROJECT DESCRIPTION

2.1 INTRODUCTION

The City of Los Angeles Department of Water and Power (LADWP) proposes to construct and operate a new 230 kilovolt (kV) underground transmission line that would connect the Scattergood Generating Station (SGS) in Playa del Rey and Olympic Receiving Station (Olympic RS) in western Los Angeles. The proposed Scattergood Olympic Transmission Line Project (SOTLP or Project) would also include minor modifications to the SGS and Olympic RS to allow the new transmission line to connect into the stations.

2.2 DESCRIPTION OF THE PROPOSED PROJECT

2.2.1 PROJECT LOCATION AND SURROUNDING LAND USES

The Project would be located in the western portion of the City of Los Angeles and cross through Culver City for a short distance. Portions of the proposed alignment are adjacent to the cities of El Segundo and Santa Monica, as well as the unincorporated community of Marina Del Rey. The SGS is located at 12700 Vista Del Mar, about one mile southwest of the Los Angeles International Airport (LAX). The Olympic RS is located at 1840 Centinela Avenue, approximately one mile northwest of the I-10/I-405 interchange.

The proposed alignment would run underground from the SGS located in the Playa Del Rey community of the City of Los Angeles, along Grand Avenue heading west, then northwest along Vista Del Mar, east onto Sandpiper Street, slightly north onto Pershing Drive, east on Westchester Parkway, north on Loyola Boulevard, northeast on La Tijera Boulevard, northwest on Lincoln Boulevard, northeast on Culver Boulevard, northwest on Centinela Avenue and Bundy Drive, and west onto Olympic Boulevard, and terminate at the Olympic RS. Figure 2.2-1 illustrates the proposed alignment.

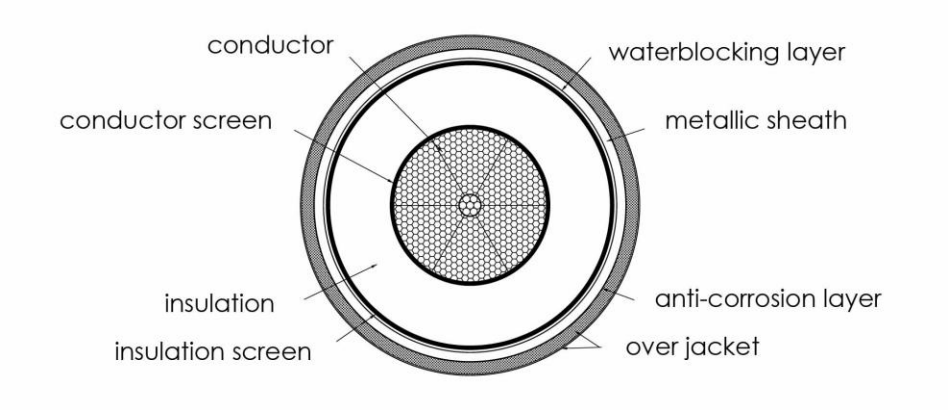
The proposed Project alignment is situated under developed streets that are generally bounded by commercial and residential properties, property adjacent to LAX, and wetland and other undeveloped areas in Playa del Rey/Playa Vista.

FIGURE 2.2-1. PROPOSED ALIGNMENT

2.2.2 230 KV UNDERGROUND TRANSMISSION LINE

The proposed Project consists of approximately 11.4 miles of 230 kV cable trenched underground within an eight-conduit, concrete-encased bank and maintenance vault system. The underground transmission line would consist of cross-linked polyethylene insulation (XLPE) copper conductor, an external metallic covering for moisture protection, and an outer polyethylene jacket for corrosion protection. Refer to Figure 2.2-2 for a cross-section of the 230 kV XLPE transmission cable. The circuit is composed of three cables that would occupy the lower three conduits. The circuit would carry 686 Megavolt-amperes (MVA) at a normal conductor temperature rating of 80 degrees Centigrade.

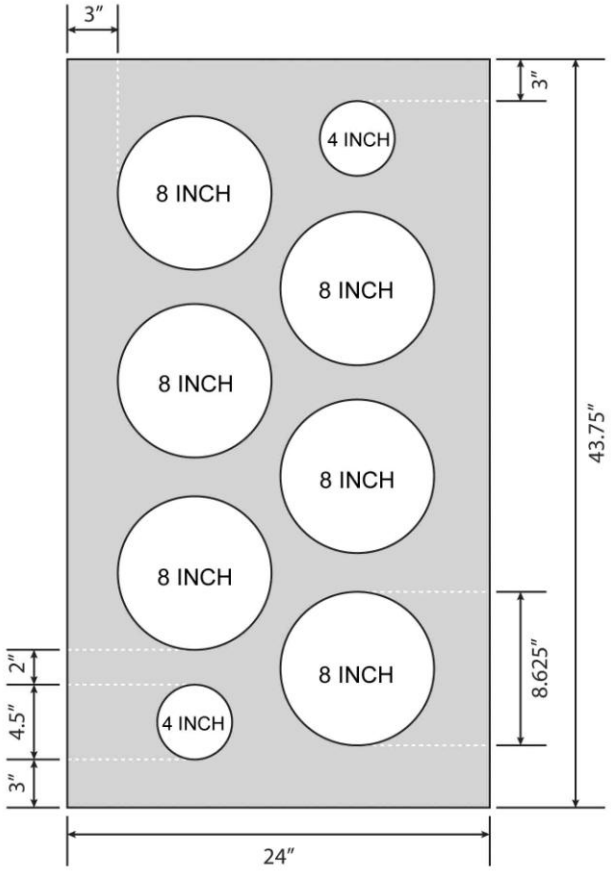
FIGURE 2.2-2. CROSS SECTION OF XLPE TRANSMISSION CABLE



Duct Bank

The transmission line cables would be installed in polyvinyl chloride (PVC) conduits, which would be encased within a concrete duct bank that is approximately 3.7 feet tall by 2 feet wide (44 inches by 24 inches). The duct bank would contain six 8-inch conduits and two 4-inch conduits. Figure 2.2-3 illustrates the typical duct bank configuration. For the proposed Project, the transmission line cables would be placed within the bottom three 8-inch conduits, the top three would be vacant, and the 4-inch conduits would be used for communication cables associated with operation and monitoring of the transmission line. (As stated in the project objectives, the proposed Project would not create additional generation and the vacant conduits would be utilized for emergency repair and maintenance.) The typical trench for duct bank installation would be approximately three feet wide and seven feet deep. In highly congested areas or near the substation terminals, the configuration of the duct bank may be altered to clear substructures.

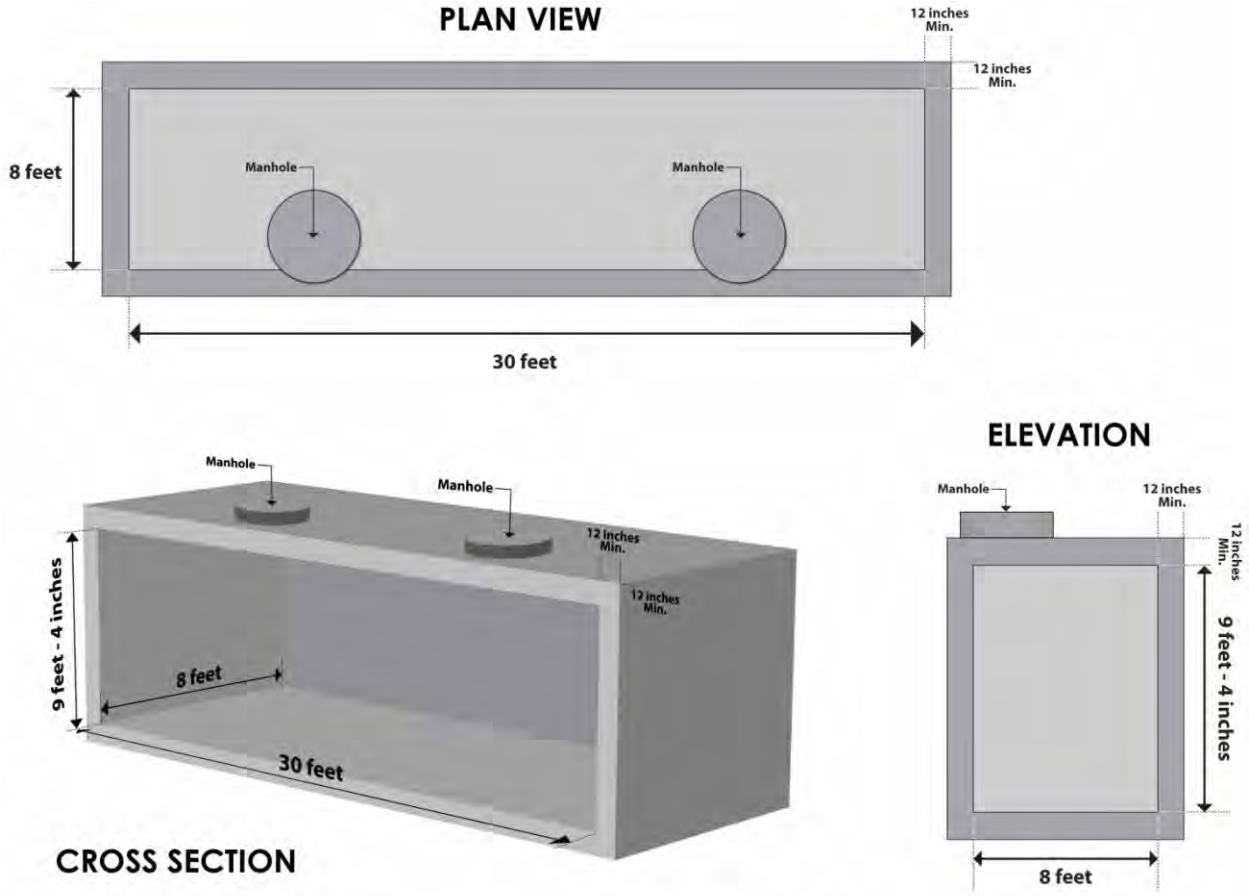
FIGURE 2.2-3. DUCT BANK CONFIGURATION



Maintenance Vaults

Maintenance vaults would be used to splice together segments of cable during installation and provide a means for inspecting the integrity of the underground cable system during the operations phase of the line. Maintenance vaults would be spaced approximately 1,000 to 1,500 feet apart along the proposed alignment. The vaults would be in precast sections with 12-inch-thick walls, and the inside dimensions would be approximately 30 feet long, 8 feet wide, and 9 feet, 4 inches tall. They would be installed within the roadway, with each vault requiring an excavation a minimum of 34 feet long (including perimeter shoring), 12 feet wide, and 14 feet, 4 inches feet deep. The underground vaults would be three feet below the road surface and have two visible entrances on the street surface. Refer to Figure 2.2-4 for an illustration of the plan view, cross section, and elevation of a typical maintenance vault.

FIGURE 2.2-4. MAINTENANCE VAULT



Right-of-Way

The proposed transmission line from SGS to Olympic RS is planned to be installed within existing streets; acquisition of private property is not anticipated. To cross Ballona Creek, a 400-foot section of the transmission line would be placed underneath the Lincoln Boulevard Bridge; the conduit bank would be anchored to one of the open bays on the underside of the bridge.

Temporary lane closures would be required to construct the underground transmission line and would be coordinated with other City Departments, such as the Los Angeles Bureau of Engineering (LABOE) and the Los Angeles Department of Transportation (LADOT).

2.2.3 SCATTERGOOD GENERATING STATION

The existing SGS is an 830-megawatt (MW) generating facility that supplies power to the LADWP in-basin electrical transmission grid. Modifications within the developed footprint of the station would be required to accommodate the new 230 kV transmission line. Crews would access the substation via existing paved roads; no road upgrades are anticipated. Foundations for new structures within the substation would be excavated with a backhoe or auger. Cranes or similar equipment would then be used to erect the new steel structure pot head support rack and install other necessary hardware.

2.2.4 OLYMPIC RECEIVING STATION

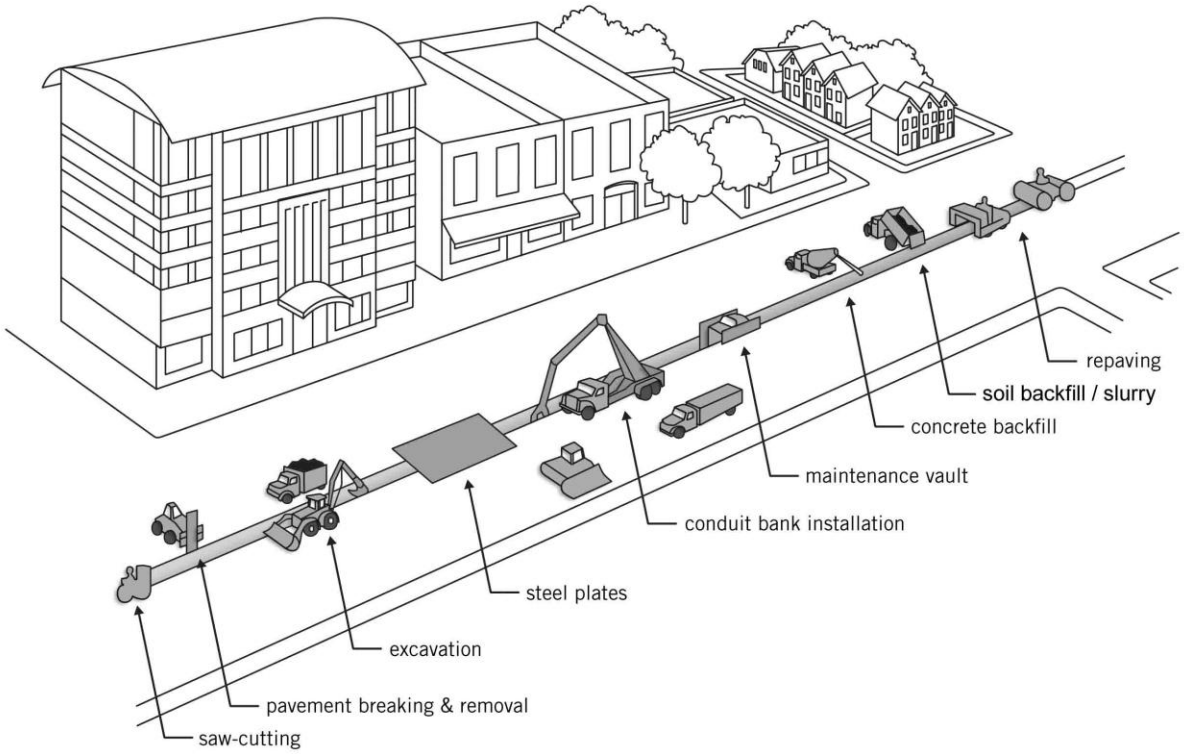
LADWP's existing Olympic RS is a 640-MVA facility that supplies power to the western portion of Los Angeles, including the communities of Venice, Mar Vista, Palms, Westwood, Bel Air, and Pacific Palisades. Modifications would be required within the developed footprint of the station to accommodate the new 230 kV transmission line. Crews would access the substation via existing paved roads; no road upgrades are anticipated. Foundations for new structures within the substation would be excavated with a backhoe or auger. Cranes or similar equipment would then be used to erect the new steel structure pot head support rack and install other necessary hardware.

2.3 PROJECT CONSTRUCTION

Construction of the Project would occur over a two-year period and involve the sequence listed below and illustrated in Figure 2.3-1. It should be noted that the underground transmission line would be constructed in segments, and construction of multiple segments would occur simultaneously.

- Surveying of transmission line alignment, trench marking, and potholing;
- saw-cutting and pavement breaking;
- trenching of duct bank;
- excavation of maintenance vaults;
- conduit bank installation;
- maintenance vault installation;
- concrete and soil backfill;
- repaving;
- cable installation and splicing; and
- commissioning and testing.

FIGURE 2.3-1. UNDERGROUND TRANSMISSION LINE CONSTRUCTION SEQUENCE



2.3.1 CONSTRUCTION ACTIVITIES AND METHODS

Survey, Trench Marking, and Potholing

Prior to excavations and trenching, coordination with the Underground Service Alert would be conducted to locate and mark existing underground structures. This would help prevent accidental dig-ins and potential utility service interruptions to existing transmission lines and substructures. The alignment would then be surveyed and the centerline marked.

Saw-cutting, Pavement Breaking, Excavations and Trenching

The underground transmission line would be installed using open-cut trenching techniques that would require an approximately ten-foot-wide by 150- to 300-foot-long temporary construction corridor. The excavation would start with the removal of the concrete/asphalt by saw-cutting and breaking.

The typical trench for duct bank installation would be approximately three feet wide and six to seven feet deep; trench depths vary depending on soil stability and presence of existing substructures. The trench would be widened and shored where needed to meet California's Occupational Safety and Health Administration safety requirements.

Each construction crew would trench an approximately 40-foot segment each day. Up to six crews would conduct trenching operations so that concurrent trenching would occur along various points of the transmission line alignment; a length of 240 feet of trenching per day is anticipated. Areas that are trenched or excavated would be covered with steel plates every evening until the road surface is restored; this would allow for continued usage of the affected roadway. When segments of the trench are restored, more trenching would occur further down the street until the conduit system was installed for the entire

alignment. Provisions for emergency vehicle and local access would be provided. It is anticipated that construction of one mile of duct bank would take approximately one month to complete.

Approximately 44,000 cubic yards of soil would be removed from the trench excavations by large trucks and hauled away to an approved off-site location for disposal or reuse. As trucks are filled with the soils, they would leave the site and be replaced by empty trucks. Depending on the size of the truck, soils from a 40-foot-long trench segment would fill approximately two to three trucks. Jackhammers would be used sparingly to break up any sections of concrete that could not be reached with the saw-cutting and pavement-breaking machines.

When the conduit bank crosses or parallels existing substructures, the minimum clearance is six inches and 12 inches, respectively. For substructures that radiate heat and would be crossed at right angles, a minimum two- to five-foot radial clearance, depending on the amount of heat generated, from the duct bank would be preferable. For paralleling substructures that operate above normal ambient earth temperatures, a 16-foot minimum radial clearance would be preferable. Examples of heat-radiating facilities include underground transmission line circuits, primary distribution cables (especially multiple-circuit duct banks), steam lines, or heated oil lines.

As the trench for the underground 230 kV transmission line is excavated, the conduits, reinforcement bar, and concrete conduit encasement would be installed. Thermal-select or controlled backfill consisting of concrete would be poured over the conduits and compacted. A road base backfill or slurry concrete cap would be installed, and the road surface would be restored. The conduit bank would be approximately 36 to 48 inches below ground surface, measured from street surface to the top of the conduit bank, and encased in concrete.

Maintenance Vault Installation

The maintenance vaults would be installed within the roadway approximately every 1,000 to 1,500 feet along the proposed transmission line alignment.

The vaults would initially be used to pull the cables through the conduits and splice cables together. During operation, maintenance vaults would provide access to the underground cables for maintenance, inspections, and repairs. Maintenance vaults would be constructed of steel-reinforced, precast concrete sections. The vaults' inside dimensions would be approximately 30 feet long, 8 feet wide, and 9 feet, 4 inches deep. The walls would be approximately 12 inches thick and designed to withstand heavy traffic loading.

Each vault would take approximately three days to install and require the closure of two lanes of vehicular travel along the affected roadway. The excavation of the maintenance vault would be approximately 34 feet long, 12 feet wide, and 14 feet, 4 inches deep. The top of the vault would be approximately three feet below grade. Approximately 9,100 cubic yards of soil would be excavated. Similar to the trenching excavation, trucks would haul material as it is excavated. The precast sections of the maintenance vault would be delivered, lifted from the transport truck, lowered, and assembled in the excavated hole with a crane. The area surrounding the vault would be filled with a slurry backfill, compacted, and repaved. Each maintenance vault would have two access openings sealed with cast iron covers that would be visible from the street.

Cable Pulling, Splicing, and Termination

Once the conduit is in place, cable segments between two maintenance vaults would be pulled into the ducts. A cable reel would be placed at one maintenance vault, and a winch truck would be placed at the other maintenance vault. With a rope, a larger steel line would be pulled into the duct. The steel line would be attached to a cable-pulling eye for pulling. To ease pulling tensions, a lubricant would be

applied to the cable as it enters the duct. Generally, three cable spans between two maintenance vaults would be installed per day and would require the closure of up to two lanes.

After installation, cables would be spliced in the maintenance vaults. A mobile generator would be located directly behind the splicing trailers to provide power for lighting and electric tools during the splicing operation. At each terminal—SGS and Olympic RS—cables would terminate at a steel structure pot head support rack in the stations.

Commissioning and Testing

Commissioning and testing would occur over the whole extent of the transmission line with testing conducted between two to four maintenance vaults at a time. These activities require a lane closure at each vault for approximately two to three hours.

Modifications to the SGS and Olympic RS

To allow the new transmission line to connect into the stations, the following equipment would be required at each station: two 230 kV breakers, four disconnects, three current voltage transformers, three A-Frames and structural steel supports for station post insulators, and various types of cables, conductors, and hardware. Associated control, metering, and protection equipment would be installed in the control room. A crane and flatbed truck would be required to transport and install the additional equipment.

Special Construction Methods (Horizontal Dry Boring)

It is not anticipated that special construction methods such as horizontal dry boring (jack and bore) would be needed. However, during final design or during trenching excavations, locations that may require horizontal boring may be identified. For example, crossings underneath large storm drains, sewer lines, or other substructures may require this method of construction.

If required, dry boring would begin by excavating a bore pit at the sending end and a trench at the receiving end. An area approximately 25 feet by 100 feet would be used for laydown and boring. The bore pit would be approximately 25 feet long by 8 feet wide and would be approximately 15 feet deep. The elevation at the bottom of the bore pit and receiving trench would be about the same. The horizontal bore equipment would then be installed in the bore pit. A steel casing 30 to 40 inches in diameter would be installed under the substructure. The steel casing would be welded in 10- to 15-foot sections and pushed into the bore as the boring operation proceeds.

The actual volume of soil removed from the bores would depend on the length of the bore; it is estimated to be less than 70 cubic yards per location. In addition to the boring machinery, a loader, backhoe, and dump truck would be used at both ends of the bore.

The PVC conduit bundles would be arranged in a circular pattern and completely assembled before being pulled through the steel casing. The setup for the dry boring operation would require a crew of four, while the operation of the bore would only require two or three crew members. The conduit pull would require a crew of four to six. Each bore would take approximately one to three weeks to complete, depending on the length.

2.3.2 CONSTRUCTION DURATION AND WORKFORCE

The City of Los Angeles Rush Hour Ordinance limits in-street construction on weekdays to the hours of 9:00 a.m. through 3:30 p.m.; however, a variance to the Mayor's Executive Directive No. 2 to allow construction outside those times would be requested. The construction of the SOTLP is estimated to take approximately 18 to 24 months (with variance obtained); if a variance is not obtained, construction of the

SOTLP would take approximately 36 months. Typical construction hours would be Monday through Friday from 7:00 a.m. to 5:00 p.m., and Saturday from 8:00 a.m. to 6:00 p.m.

Each major construction activity would be performed by one to six crews, and each crew would include two to ten members. For example, trenching and conduit bank installation occurring along six 40-foot-long segments would require 36 workers. At any given time, construction may require a total of approximately 60 to 120 personnel spread over the length of the route.

Up to two traffic lanes would be closed for the installation of the conduit bank and maintenance vaults. A Traffic Control Plan would be prepared to minimize disruption to traffic flow. Table 2.3-1 lists the anticipated lane closures for the construction activities.

TABLE 2.3-1. ESTIMATED LANE CLOSURES BASED ON CONSTRUCTION ACTIVITY

ACTIVITY	NUMBER OF LANES CLOSED
Surveying	1
Saw-cutting and Pavement Breaking	1
Trenching and Conduit Bank Installation	2
Excavation and Vault Installation	2
Cable Installation	1 or 2
Cable Splicing	1
Commissioning and Testing	1

The estimated construction period for each street is summarized in Table 2.3-2. Construction of the new transmission line would occur concurrently on different road segments.

TABLE 2.3-2. ESTIMATED CONSTRUCTION DURATION TIMES FOR INSTALLATION OF CONDUIT BANK, MAINTENANCE VAULTS, AND CABLES

AFFECTED STREET	APPROXIMATE CONSTRUCTION DURATION
Grand Avenue	15 to 20 days
Vista Del Mar	160 to 180 days
Sandpiper Street	30 to 35 days
Pershing Drive	3 to 5 days
Westchester Parkway	90 to 100 days
Loyola Boulevard	15 to 20 days
La Tijera Boulevard	3 to 8 days
Lincoln Boulevard	120 to 130 days
Transition Road from Lincoln to Culver	3 to 5 days
Culver Boulevard	90 to 100 days
Centinela Avenue	160 to 170 days
Bundy Drive	70 to 80 days
Olympic Boulevard	15 to 20 days

2.3.3 CONSTRUCTION EQUIPMENT

The type of equipment used for the construction of the underground transmission line would be based on the activity and is summarized in Table 2.3-3.

TABLE 2.3-3. EQUIPMENT REQUIRED FOR CONSTRUCTION ACTIVITY

Equipment	Survey & Potholing	Trench & Duct Bank	Vault Installation	Cable Pulling	Splicing	Station Modification
Back Hoe, with Bucket			x			
Backhoe, Silt Fence Trencher/Plow	x	x				
Crane, Hydraulic, 150 Ton						x
Crane, Hydraulic, 200 Ton			x			
Excavator, Grade-all		x				
Motor Grader		x				
Motor, Auxiliary Power	x			x	x	x
Reel Carrier				x		
Trailer, Flatbed, 40'	x					x
Trailer, lowboy			x			
Trailer, Storage, 40'					x	
Truck, Crew Cab Flatbed, 1 Ton		x	x	x		x
Truck, Dump, 10 Ton	x		x			
Truck, Mechanics, 1-2 Ton				x		
Truck, Pick-up	x	x	x	x	x	x
Truck, Semi, Tractor	x	x	x	x		
Winch, Hydraulic				x		

2.3.4 STAGING AREAS

The following four major staging areas have been identified to store equipment and materials for the construction of the Project:

1. Hyperion Terminal Tower—7500 Imperial Highway, Playa Del Rey. This is an LADWP-owned property where three overhead transmission lines transition to underground. A fence would be added to keep equipment/personnel away from the high-voltage equipment. Access to the property would occur from Imperial Highway.
2. Scattergood Generating Station—12700 Vista Del Mar, Playa Del Rey. The 830 MW generating facility is an LADWP-owned property. Flat vacant land is located on the east side of the property and would be used to store equipment. The area would be fenced off and accessed through Grand Avenue.
3. LAX holding area—10700 Pershing, Playa Del Rey. The LAX holding area is just west of LAX and belongs to the Los Angeles World Airport. It would be accessed from Pershing Drive.
4. Olympic Receiving Station—1840 Centinela Avenue, Los Angeles. This is an LADWP-owned property and the southwest side of the station would be used to store equipment and materials. Access would occur from Centinela Avenue.

The proposed transmission line alignment would traverse urban development, and other staging areas may be identified. These staging areas would consist of parking lots, empty industrial or commercial sites, or similar spaces adjacent to or nearby the right-of-way.

2.4 OPERATION AND MAINTENANCE PROCEDURES

Inspection of the transmission line, instrumentation and controls, and support systems is critical for Project operation. Routine maintenance on an XLPE circuit would be performed regularly to ensure the cables operate normally. Early identification of items needing maintenance, repair, or replacement would ensure reliable operation of the transmission line.

Annual inspections of the integrity of the transmission line would be performed and would include the inspection of all of the structures at the stations and maintenance vaults for corrosion and misalignment. The maintenance activities listed below may require the temporary closure of a single roadway lane for the duration of the activity. No other operational activities resulting from the proposed Project would occur.

Routine maintenance and inspection would include the following:

Terminations – Terminations at stations would be inspected to determine if the skirts are chipped or cracked; if so, they must be repaired or replaced in order to prevent ingress of moisture into the terminator. Terminations would also be checked for buildup of dirt and contaminants along the skirts or at the ferrule. In cases of severe buildup, terminators would be washed in order to prevent flashovers.

Maintenance Vaults – Maintenance vaults would be inspected to ensure that the cables are securely fastened to the brackets/clamps, that ground connections are intact, and that brackets are securely attached to the walls of the maintenance hole. Where practical and feasible, any water that has accumulated inside vaults would be removed using a water pump and vacuum truck. Electrical equipment would also be checked for corrosion.

Solid Dielectric Cables – If mechanical damage of the conductor is suspected, a conductor jacket integrity test would be performed to verify the integrity of the jacket.

CHAPTER 3: ALTERNATIVES

3.1 INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA) Guidelines, alternatives to the proposed Scattergood-Olympic Transmission Line Project (SOTLP or Project) have been considered to foster informed decision-making and public participation. According to the CEQA Guidelines Section 15126.6(a), ~~"a~~n EIR [Environmental Impact Report] shall describe a range of reasonable alternatives to the proposed project, or to the location of the proposed project, which would feasibly attain most of the basic objectives of the proposed project, but would avoid or substantially lessen any of the significant effects of the proposed project, and evaluate the comparative merits of the alternatives." The CEQA Guidelines state that an EIR need not consider every conceivable alternative or consider alternatives that are infeasible. The alternatives analysis must also include a comparative evaluation of the No Project Alternative. Through evaluation of alternatives, the advantages and disadvantages of each alternative compared with the proposed Project can be determined.

3.2 ALTERNATIVES DEVELOPMENT

As detailed in Chapter 4 (Environmental Setting and Impacts) and Chapter 5 (Other CEQA Considerations), the proposed Project would result in temporary significant impacts related to noise and traffic during construction. Impacts would be less than significant for all other environmental resources. There would be no significant impacts during operations. A range of alternatives was evaluated as a means to identify an alternative that lessens impacts to the extent practicable. The identification and evaluation of alternatives was substantively based on input received from agencies and the public during both the Project scoping period (October 12, 2010 through November 12, 2010) and Informational Public Meetings (February 23 and 24, 2011). Refer to Chapter 6 for detailed discussion regarding the public scoping process and associated meetings, and subsequent Informational Public Meetings.

The Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the Project evaluated an alignment for the proposed 230 kV underground transmission line along the following roadways, originating at Scattergood Generating Station (SGS): west along Grand Avenue, northwest along Vista del Mar, northeast along Vista del Mar Lane, east along Manchester Avenue, northwest along Rayford Drive, northeast along West 83rd Street, northwest along Lincoln Boulevard, northeast along Jefferson Boulevard, northwest along Inglewood Boulevard, southwest along National Boulevard, northwest along Armacost Avenue, southwest along Ocean Park Boulevard, northwest along Bundy Drive, and west along Olympic Boulevard, finally terminating at the Olympic RS. During the scoping period, residents in the Project area raised concern regarding the placement of the proposed underground 230 kV transmission line parallel to an existing natural gas transmission pipeline located along Inglewood Boulevard. Therefore, Inglewood Boulevard, as well National Boulevard, Armacost Avenue, and Ocean Park Boulevard, which are streets associated with the alignment along Inglewood Boulevard, were eliminated from further consideration due to concerns regarding the potential hazards of constructing and operating a high-voltage electrical transmission line parallel to a natural gas transmission pipeline for an extended distance.

During scoping, agency representatives requested that Sawtelle Boulevard, Sepulveda Boulevard, and Centinela Avenue be considered for the routing of the proposed 230 kV underground transmission line. Other alternatives, as further described below, were developed independent of Project-related scoping so as to further consider a range of possible alternatives to the proposed Project.

3.2.1 PROJECT STUDY AREA

Viable transmission routing alternatives for this Project were considered within the Project's Study Area, as illustrated in Figure 3.2-1. Establishment of the Study Area was developed in coordination with input provided by agencies and the public. The Study Area is primarily defined by key landmarks (e.g., Pacific Ocean, Los Angeles International Airport, highways, municipal boundaries), and encompasses an area large enough to allow for consideration of a range of reasonable transmission routing alignments to connect the existing SGS and Olympic Receiving Station (Olympic RS).

FIGURE 3.2-1. STUDY AREA BOUNDARY

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3.2.2 PROJECT ALTERNATIVES SCREENING METHODOLOGY

The evaluation of Project alternatives was conducted using a screening process that involved consideration of the Project objectives, in combination with siting criteria. Details regarding the screening methodology are provided in the following sections.

Consistency with Project Objectives

The objectives of the proposed Project, which establish the basis for identifying potential Project alternatives, are as follows:

- Enhance reliability and improve flexibility of the existing Scattergood Transmission System;
- Better utilize the energy produced from the SGS; and
- Comply with federally mandated standards.

More detailed discussion regarding the Project and Project objectives is included in Chapter 1 (Introduction/Overview).

Routing Alignment Siting Criteria

Siting criteria were established for identification of potential Project routing alignments and refined based on input received from the public and agencies during the formal scoping period and subsequent Informational Public Meetings. Siting criteria, notably criteria pertaining to engineering constructability, also were developed. The following criteria were used to identify potential routing alignments for the SOTLP:

1. ***Reliability*** – Select a routing alignment between the existing SGS and Olympic RS that minimizes the overall length of the new transmission line and the number of bends and splices along the alignment.

2. ***Maximize Use of Existing Roadways*** – To the maximum extent possible, install the proposed transmission line within existing roadways so as to avoid the need to acquire privately or publicly owned property.

3. ***Land Use Considerations*** – To the extent practicable, and taking into consideration all other siting criteria, seek to install the proposed transmission line along a route that minimizes adjacency to the following land use types and facilities:

    - Residential development
    - Schools and licensed daycare facilities
    - Hospitals
    - Parks

4. ***Minimize Conflicts with Existing Substructure Utilities*** – Many comments were received during the public scoping period and ongoing public outreach efforts to avoid routing alignments that include existing natural gas transmission and petroleum pipelines. In that regard, priority is given to routing alignments that avoid roadways that include natural gas and petroleum transmission pipelines.

5. ***Constructability*** – The proposed routing alignment must afford installation of the new transmission line such that the construction, operation, and maintenance or spacing requirements of multiple facilities using common rights-of-way is technically feasible. Topographic and geologic considerations were also identified as constructability criteria, with preference for flat terrain.

6. ***Minimize Construction Duration*** – Select a routing alignment that, to the extent possible, minimizes construction duration so as to lessen construction-related impacts to adjacent and nearby areas.

7. ***Street Width*** – Select a route that, to the extent practicable, utilizes existing roadways of sufficient width, preferably four lanes or wider, so as to minimize disruption to traffic flow during Project construction.

3.2.3 PRELIMINARY ALTERNATIVE PROJECT ROUTING ALIGNMENTS

Taking into account the above-described siting criteria, a number of preliminary potential alignments were identified for routing of the proposed SOTLP. Figure 3.2-2 illustrates the various preliminary potential alignment links that were identified as a result of implementing the Project siting criteria. The majority of these preliminary alignment links were presented for public and agency input at the Informational Public Meetings conducted in February 2011 (refer to Chapter 6 for detailed discussion regarding the summary of comments related to Project alternatives received at the Informational Public Meetings). Subsequent to the Informational Public Meetings, and after having conducted additional constructability analyses, alternative alignment link E, as illustrated in Figure 3.2-2, was slightly modified to connect from Westchester Parkway to Lincoln Boulevard (Highway 1) via Loyola Boulevard and La Tijera Boulevard, as opposed to a direct connection from Westchester Parkway to Lincoln Boulevard. A direct connection from Westchester Parkway to Lincoln Boulevard is not constructible without requiring acquisition of private property, due to the existing overpass at the junction of these two roadways. Further, an additional potential routing alignment link was added (link JJ) to address a potential alignment along the existing Scattergood Transmission Corridor between the SGS and Imperial Terminal Tower.

Taking into account the Project siting criteria and public and agency input, and also following additional analyses conducted subsequent to the Informational Public Meetings, including further investigations regarding existing substructure utilities, a proposed routing alignment for the SOTLP was identified. A detailed description of the proposed routing alignment is provided below. Please refer to Section 3.5 (Alternative Project Routing Alignments) for discussion regarding alternative alignments that were considered but eliminated from full evaluation in this EIR.

FIGURE 3.2-2. ALTERNATIVE LINKS

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3.3 PROPOSED PROJECT

The proposed routing alignment of the SOTLP is approximately 11.4 miles in length and would be constructed within the following existing roadways (listed in a south-to-north direction; refer to Figure 3.3-1):

- Grand Avenue
- Vista Del Mar
- Sandpiper Street
- Pershing Drive
- Westchester Parkway
- Loyola Boulevard
- La Tijera Boulevard
- Lincoln Boulevard
- Culver Boulevard
- Centinela Avenue
- Bundy Drive
- Olympic Boulevard

It is anticipated that the proposed routing alignment would take 18 to 24 months to construct with a variance to the Mayor's Executive Directive No. 2[1]; if a variance is not obtained, construction of the SOTLP would take approximately 36 months. Along the route, the proposed routing alignment would parallel the existing Scattergood-Olympic Transmission Line for a distance of 3.8 miles along Culver Boulevard, Centinela Avenue, and Bundy Drive. Table 3.3-1 provides a summary of the proposed routing alignment's characteristics, particularly as it relates to the siting criteria discussed in Section 3.2.2.

TABLE 3.3-1. SUMMARY OF KEY CHARACTERISTICS OF THE PROPOSED ROUTING ALIGNMENT

Description		Total
Length (Mileage)		11.4
Construction Duration (Months)		18 to 24
Adjacent Residential Development (Mileage)*		7.0
Adjacent Sensitive Facilities (Count)	School/Daycare	5
	Parks	6
	Healthcare/Hospital	1
Substructure Crossings (Count)	Gas Transmission	1
	Gas Distribution	25
	Oil	3
Substructures Paralleled (Mileage)	Gas Transmission	0.2
	Gas Distribution	5.0
	Oil	0.9

*Land that is designated for residential land use per City of Los Angeles' General Plan adjacent to Westchester Parkway and Pershing Drive between Imperial Highway and Sandpiper Street is currently vacant, and therefore not accounted for in the Adjacent Land Use "Residential" calculation.

Additional Notes:

(1.) Mileage calculations are rounded to the nearest tenth of a mile.

(2.) Mileage calculations are computed by adding land use frontage on each side of the proposed routing alignment to derive the total mileage frontage.

[1] The Mayor's Executive Directive No. 2 limits in-street construction on weekdays to the hours of 9:00 a.m. through 3:30 p.m.

(3.) Substructure information is based on data obtained from NavigateLA website (http://navigatela.lacity.org/index01.cfm) (accessed December 2010 and February 2011; National Pipeline Mapping System ((https://www.npms.phmsa.dot.gov/) and utility mapping provided by LADWP for select portions of routing alignments. The ultimate location of substructures in relation to the proposed routing alignment would be confirmed prior to construction.

As presented in the above table, approximately seven linear miles of residential land use fronts the proposed routing alignment, and five schools/daycare facilities (Ocean Charter School, James J. McBride Special Education Center, Pacifica Montessori School, Otis College of Art and Design, and Loyola Marymount University), six parks (Dockweiler State Beach, Vista Del Mar Park, Westchester Recreation Center, Playa Vista Park, Culver Marina Little League, and Santa Monica Airport Park), and one hospital or healthcare facility (Culver West Convalescent Hospital) are located adjacent to the proposed routing alignment. With regard to existing substructure utilities, one natural gas transmission pipeline is anticipated to be crossed by the proposed routing alignment along Jefferson Boulevard. In addition, it is anticipated that the proposed routing alignment would cross 25 natural gas distribution pipelines and three oil pipelines. It is estimated that the proposed routing alignment would parallel existing transmission pipelines, distribution pipelines and oil pipelines for a distance of 0.2, 5.0, and 0.9 linear miles, respectively. Finally, it is anticipated that two-way vehicular travel would be maintained during construction on the roadways along the proposed routing alignment.

FIGURE 3.3-1. PROPOSED PROJECT

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3.4 ALTERNATIVES CONSIDERED

Provided below is a discussion of alternatives to the proposed Project that were considered, but not fully evaluated, in this EIR. As discussed previously in Section 3.2.2, alternatives were assessed for their ability to achieve the Project objectives, and Project alternatives were evaluated against the siting criteria established for the Project. Furthermore, and although the proposed Project (as described above in Section 3.2) would not result in significant long-term (operational) impacts, opportunities were sought to further reduce impacts (e.g., minimize distance of routing alignment adjacent to sensitive land use/facilities, reduce number of substructure utility crossings and distances paralleled) as compared to the proposed Project.

Specific alternatives to the proposed Project that were considered but eliminated from full EIR evaluation are described in the following sections.

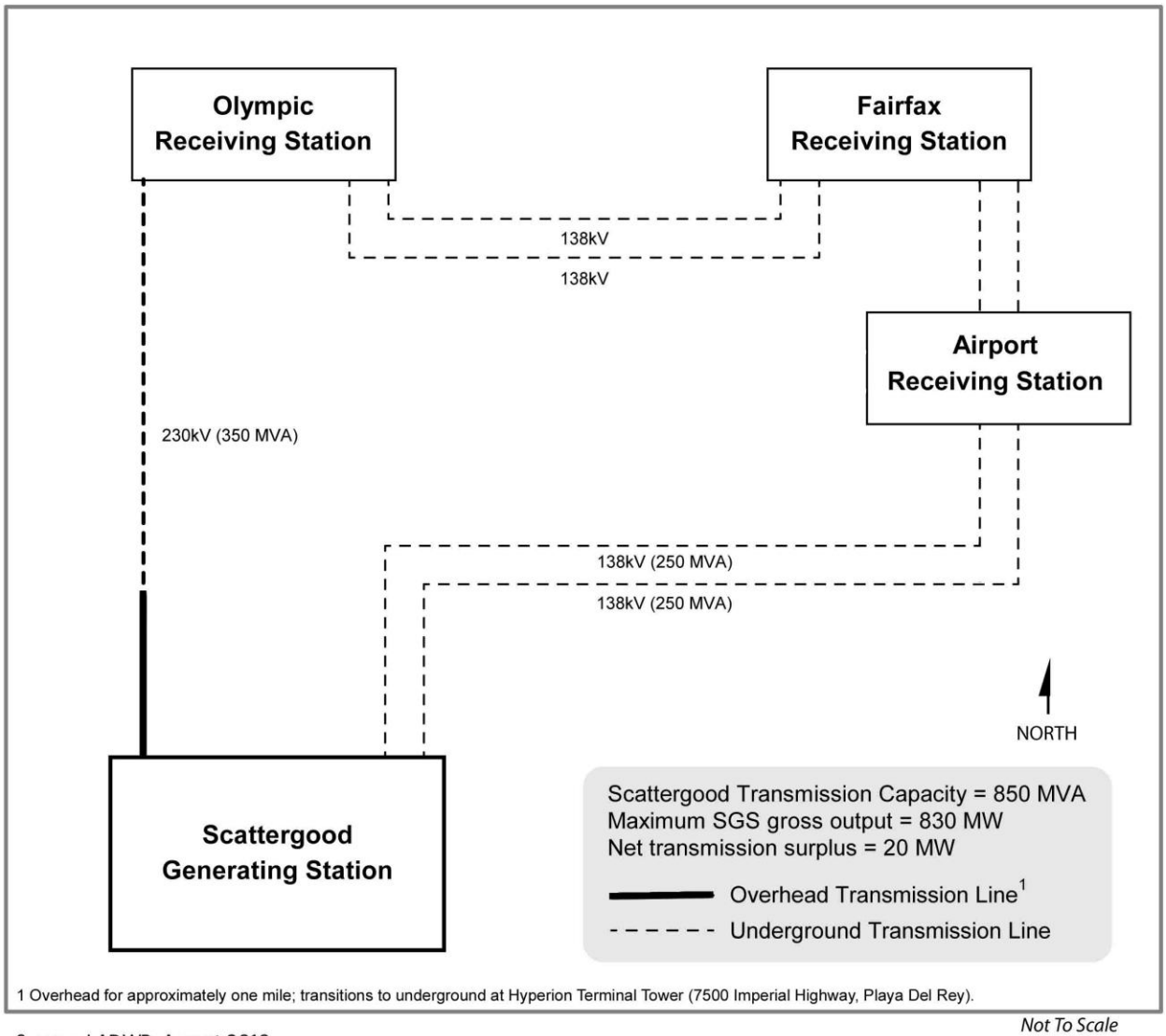
3.4.1 OTHER TRANSMISSION ALTERNATIVES

Background

The existing Scattergood Transmission System can transfer 850 megawatts (MW) of power and consists of the Scattergood-Airport 138 kV lines 1 and 2 and the existing Scattergood-Olympic 230 kV line; these lines are underground except for the portion between SGS and the Imperial Terminal Tower. The maximum gross output of the SGS is 830 MW. Therefore, the existing Scattergood Transmission System only marginally accommodates SGS generation, and this accommodation is only possible because the Scattergood Remedial Action Scheme (RAS) protects the existing Scattergood transmission circuits from severe overloads resulting from the loss of any single existing Scattergood Transmission System circuit. When any one of the three Scattergood transmission circuits relays, the remaining two circuits are subject to potentially damaging overloads unless Scattergood generation can be rapidly reduced. The purpose of the Scattergood RAS is to prevent overloading of the remaining Scattergood Transmission System lines by tripping generating units when failure of an existing transmission line occurs.

Under normal operating conditions, the Scattergood Transmission System is able to transmit the maximum SGS output with the proper settings of the 500 MVA phase-shifter transformer between the existing 230 kV and 138 kV bus racks. The main function of the phase shifter is to –force" certain power flow going to either the Scattergood-Olympic 230 kV transmission line or Scattergood-Airport 138 kV lines. The phase shifter can also divert a loop flow around the Scattergood-Olympic-Fairfax-Airport-Scattergood system in the desired direction for system security purpose. Figure 3.4-2 conceptually illustrates the existing Scattergood Transmission System.

FIGURE 3.4-2. SCATTERGOOD TRANSMISSION SYSTEM



Not To Scale

Source: LADWP, August 2010
kV = kilovolt
MVA = megavolt amperes

Scattergood Transmission System Alternatives

As further detailed in its white paper titled ―Justification for Scattergood-Olympic Line 1" (August 2010)—and given past failure events of the existing Scattergood-Olympic 230 kV underground line, coupled with the outage of the entire Receiving Station E (Los Angeles, CA) on September 12, 2005—LADWP's Power System Planning Division conducted assessments of the reliability of the Scattergood Transmission System; this included its 2006 Ten-Year Assessment. In January 2010, LADWP's Power System Planning Division also conducted an assessment of the Scattergood-Olympic-Tarzana Transmission System with Scattergood Unit No. 3 out for a long period of time. As a result of these assessments of the existing transmission systems, the following potential alternatives were identified:

- ***Alternative 1*** – No Development
- ***Alternative 2*** – Install a new Scattergood-Fairfax 138 kV circuit
- ***Alternative 3*** – Upgrade the existing Scattergood-Airport 138 kV circuits

- ***Alternative 4*** – Upgrade the existing Scattergood-Airport, Airport Receiving Station, and Airport-Fairfax circuits from 138 kV to 230 kV
- ***Alternative 5*** – Install a New Tarzana-Olympic 230 kV circuit by converting one Tarzana-Olympic 138 kV to 230 kV, and installing a new 3.2-mile-long 230 kV cable
- ***Alternative 6*** – Construct Scattergood-Olympic Line 1 (proposed Project)

As documented in "Justification for Scattergood-Olympic Line 1," the following recommendations with regards to these alternatives were made:

- ***Alternative 1 (No Development):***
  - The failure of any cable segments of the Scattergood Transmission System would continue to result in an extended curtailment of Scattergood generation until the cable could be repaired. Historically, this has occurred twice within the last 16 years and these occurrences are expected to increase with the increasing age of the Scattergood Transmission System. The existing Scattergood Transmission System is approaching 40 years in age, which is a serious threat to the reliability of the system.
  - The current Scattergood Transmission System only marginally meets the N-0 (normal condition) reliability requirement and does not meet the N-1 reliability requirements, as mandated by federal standards.
- ***Alternatives 2, 3, and 4 (Install or upgrade existing circuits):***
  - Provide insufficient (N-1) transmission capacity in the event the existing Scattergood-Olympic 230 kV transmission line is out due to equipment failure or scheduled maintenance.
  - When the load demand at Olympic RS is high and the existing Scattergood-Olympic 230 kV transmission line is not available, the Tarzana-Olympic circuits would be severely congested or overloaded.
  - As a result, rolling blackouts may be implemented as a last resort to protect equipment at Olympic RS from permanent damage. However, this is a clear violation of North American Electrical Reliability Corporation (NERC) Transmission Planning standard TPL-001-01, and therefore not feasible.
- ***Alternative 5 (Install new Tarzana-Olympic circuit):***
  - This alternative would relieve congestion along the Tarzana-Olympic path when the load demand at the Olympic RS is high and the existing Scattergood-Olympic 230 kV transmission line is not available. However, this alternative would not be adequate when:
    - The Tarzana-Olympic circuits are out – the Olympic RS would go black due to insufficient power feeding from the south and from the east.
    - When the existing Scattergood-Olympic 230 kV transmission line is out and no back-up transmission circuit (such as the proposed Project addressed in this EIR) is available, the Scattergood generating plant would have to operate below its maximum capacity. This mode of operation is not economical and severely reduces system adequacy; therefore, this alternative would be unable to withstand and respond to the (N-1) contingency.
- ***Alternative 6 (Construction of Scattergood-Olympic Line No. 1 [proposed Project]):***
  - Provide sufficient (N-1) transmission capacity and increase the operating transfer capability and flexibility of Scattergood generation.
  - Relieve congestion along the Tarzana-Olympic path when the load demand at the Olympic RS is high and the existing Scattergood-Olympic 230 kV transmission line is not available.
  - Installation of the Scattergood-Olympic Line No. 1 (proposed Project) would meet NERC TPL-001-0.1 and TPL-002-0b Standards.
  - Meet system adequacy requirements and reduce exposure to uncontrolled cascading outages caused by catastrophic events.

As documented in the reliability assessment, installation of the other above-described transmission alternatives (Alternatives 2, 3, 4, and 5) and the No Development (Project) Alternative are not viable alternatives to the proposed Project, as they would not meet the Project objectives.

3.4.2 NON-WIRE ALTERNATIVE

Demand-Side Management

LADWP implements demand-side management programs that help to counter or minimize energy demand growth and lessen the need for building additional generation assets.

LADWP's Integrated Resource Plan accounts for load reductions that are expected to result from locally focused demand-side management programs. The projected demand-side management program benefits would not, in and of themselves, result in a reduction of demand from users such that it would result in meeting the stated objectives of the Project to improve the reliability of the existing Scattergood Transmission System.

Demand-side management is feasible, but, as stated above, would not directly increase the reliability of electrical transmission from the SGS to the Olympic RS. This alternative was eliminated from further consideration, as it does not meet the basic objectives of the Project.

3.4.3 NO PROJECT ALTERNATIVE

An evaluation of a No Project Alternative is required under CEQA. Under this alternative, the proposed Project would not be implemented. The No Project Alternative is a technically feasible alternative to the proposed Project. However, the No Project Alternative would not meet any of the objectives identified for the proposed Project, including the following:

- Enhance reliability and improve flexibility of the existing Scattergood Transmission System;
- Better utilize the energy produced from the SGS; and
- Comply with federally mandated standards.

The No Project Alternative would not create any impacts, temporary or permanent, since no construction activities would occur. However, LADWP must provide safe and reliable electrical service, and the long-term impacts related to increased unreliability would remain. Therefore, the No Project Alternative would likely lead to the construction of a new transmission line, either overhead or underground, which would have impacts equal to or greater than the proposed project. Since the No Project Alternative would not meet any of the Project objectives, it is essentially infeasible and was dismissed from further analysis.

3.5 ALTERNATIVE PROJECT ROUTING ALIGNMENTS

Taking into account the Project objectives, siting criteria, and public and agency input, combinations of potential alternative alignments consisting of ~~l~~inks," as illustrated in Figure 3.2-2, were evaluated to arrive at potential overall alternative routing alignments for the Project. As a result of this process, two alternative alignments were identified; each of these alternative alignments is discussed in detail below, followed by a discussion comparing the key characteristics of the two alternative routing alignments against the proposed routing alignment.

Sawtelle Boulevard Routing Alignment

A potential Project routing alignment utilizing Sawtelle Boulevard was considered, taking into account the Project siting criteria described in Section 3.2.2. More specifically, the Sawtelle Boulevard Routing

Alignment, as shown in Figure 3.4-1, is approximately 13.5 miles in length and would be constructed within the following existing roadways (listed in a south-to-north direction):

- Grand Avenue
- Vista Del Mar
- Sandpiper Street
- Pershing Drive
- Manchester Avenue
- Lincoln Boulevard
- Washington Boulevard/Washington Place
- Sawtelle Boulevard
- Olympic Boulevard

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FIGURE 3.4-1. ALTERNATIVE ROUTES

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It is anticipated that the Sawtelle Boulevard Routing Alignment would take 22 to 28 months to construct with a variance to the Mayor's Executive Directive No. 2. Approximately 8.3 linear miles of residential land use fronts this routing alignment, and 16 schools/daycare facilities (California ESL, Westchester Senior High School, Del Rey Continuation High School, St. Anastasia School, Westchester Parents' Nursery School, Loyola Marymount University, Kids Pointe Preschool, Our World Preschool, Betsy Ross School, Wildwood School, Winward School, Magnolia Science Academy, Daniel Webster Middle School, Wonder Years Preschool, Creative Kids Learning Garden Preschool, and Yo San University of Traditional Chinese Medicine), five parks (Vista Del Mar Park, Dockweiler State Beach, Westchester Recreation Center, Mar Vista Recreation Center, and Playa Vista Park), and three hospitals or healthcare facilities (Del Rey Hospital, Playa Del Rey Care & Rehab Center, and Culver West Convalescent Hospital) are located along the Sawtelle Boulevard Routing Alignment. A total of seven natural gas transmission pipelines, 39 natural gas distribution pipelines, and five oil pipelines would be crossed by this routing alignment. In addition, 0.2 miles of gas transmission pipelines, 6.1 miles of gas distribution pipelines, and 3.5 miles of oil pipelines would be parallel this routing alignment.

It is estimated that this particular routing alignment would take approximately two to four months longer to construct as compared to the proposed routing alignment. Given the longer construction duration, the Sawtelle Boulevard Routing Alignment would expose the public to additional construction-related impacts (i.e., noise, air quality, and traffic impacts) as compared to the proposed routing alignment. Moreover, the Sawtelle Boulevard Routing Alignment would not avoid or minimize impacts that the proposed routing alignment, as described in Section 3.3, would otherwise generate.

Sepulveda Boulevard Routing Alignment

Taking into account the Project siting criteria, a potential Project routing alignment utilizing Sepulveda Boulevard was also considered. As a result, the Sepulveda Boulevard Routing Alignment, as shown in Figure 3.4-1, was identified. This alternative routing alignment is approximately 14.2 miles in length, is the longest of the alternative routing alignments considered, and would be constructed within the following existing roadways (listed in a south-to-north direction):

- Grand Avenue
- Vista Del Mar
- Imperial Highway
- Pershing Drive
- Westchester Parkway
- Loyola Boulevard
- La Tijera Boulevard
- Lincoln Boulevard
- Venice Boulevard
- Sepulveda Boulevard
- Olympic Boulevard

It is anticipated that the Sepulveda Boulevard Routing Alignment would take 24 to 30 months to construct with a variance to the Mayor's Executive Directive No. 2. Approximately 6.5 linear miles of residential land use fronts this particular routing alignment, and eleven schools/daycare facilities (Creative Kids Learning Garden Preschool, Wildwood School, UCLA Early Care & Education, Charnock Road Elementary, Ryokan College, New School-West Inc., Venice High School, Morning Glory Preschool, Kids Pointe Preschool, Loyola Marymount University, and Otis College of Arts and Design), three parks (Dockweiler State Beach, Westchester Recreation Center, and Playa Vista Park), and one hospital or healthcare facility (Marina Del Rey Hospital) is located along the Sepulveda Boulevard Routing Alignment. A total of seven natural gas transmission pipelines, 29 natural gas distribution

pipelines, and eight oil pipelines would be crossed by this particular routing alignment, and this alignment would parallel existing natural gas transmission pipelines for 2.5 miles, gas distribution pipelines for 5.2 miles, and oil pipelines for 1.3 miles.

The Sepulveda Boulevard Routing Alignment would take approximately four to six months longer to construct as compared to the proposed routing alignment. The longer construction duration would expose the public to additional construction-related impacts (i.e., noise, air quality, and traffic impacts) as compared to the proposed routing alignment. Comparatively, and like the Sawtelle Boulevard Routing Alignment, the Sepulveda Boulevard Routing Alignment would not avoid or minimize impacts that the proposed routing alignment as described in Section 3.3, would otherwise generate.

Comparison of Proposed and Alternative Routing Alignments

For purposes of detailed comparison, Table 3.4-1 provides key characteristics associated with the proposed routing alignment and the two above-described alternative routing alignments.

TABLE 3.4-1. COMPARISON OF KEY CHARACTERISTICS OF THE PROPOSED AND ALTERNATIVE ROUTING ALIGNMENTS

Key Characteristics		Totals		
		Proposed Routing Alignment	Sawtelle Routing Alignment	Sepulveda Routing Alignment
Length (Mileage)		11.4	13.5	14.2
Construction Duration (Months)		18 to 24	22 to 28	24 to 30
Adjacent Residential Development (Mileage)*		7.0	8.3	6.5
Adjacent Sensitive Facilities (Count)	School/Daycare	5	16	11
	Parks	6	3	3
	Healthcare/Hospital	1	5	1
Substructure Crossings (Count)	Gas Transmission	1	7	7
	Gas Distribution	25	39	29
	Oil	3	5	8
Substructures Paralleled (Mileage)	Gas Transmission	0.2	0.2	2.5**
	Gas Distribution	5.0	6.1	5.2
	Oil	0.9	3.5	1.3

*Land that is designated for residential land use per City of Los Angeles' General Plan adjacent to Westchester Parkway, Loyola Boulevard, and La Tijera Boulevard, and also along Pershing Drive between Imperial Highway and Sandpiper Street, is currently vacant, and therefore not accounted for in the Adjacent Land Use "Residential" calculation.

**The existing natural gas pipeline along Sepulveda Boulevard is sized for transmission and is used for transmission purposes until it intersects Pico Boulevard, but is pressurized for gas distribution from Pico Boulevard south along the Sepulveda Boulevard routing alignment.

Additional Notes:

(1.) Mileage calculations are rounded to the nearest tenth of a mile.

(2.) Mileage calculations are computed by adding land use frontage on both sides of each route alignment to derive the total mileage frontage.

(3.) Substructure information is based on data obtained from NavigateLA website (http://navigatela.lacity.org/index01.cfm) (accessed December 2010 and February 2011; National Pipeline Mapping System ((https://www.npms.phmsa.dot.gov/) and utility mapping provided by LADWP for select portions of routing alignments. The ultimate location of substructures in relation to the proposed routing alignment would be confirmed prior to construction.

As shown in Table 3.4-1, the proposed routing alignment is the shortest in distance as compared to the two alternative routing alignments, is the least expensive, and would take the least amount of time to construct as compared to the alternative routing alignments. Although it is the longest route, the Sepulveda Boulevard Routing Alignment has the least amount of residential land use fronting the alignment as compared to the proposed routing alignment and the Sawtelle Boulevard Routing Alignment. However, the proposed routing alignment has substantively fewer adjacent sensitive facilities

(i.e., schools and daycare establishments, parks, and hospital and healthcare facilities) fronting its alignment as compared to the Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments.

Furthermore, the proposed routing alignment crosses substantively fewer natural gas transmission and distribution and oil pipelines as compared to the Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments.

As described in Chapter 4, the proposed Project would not result in any significant long-term impacts. It would result in temporary significant impacts related to noise and traffic. Furthermore, the Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments would not avoid or minimize impacts that would otherwise be generated by the proposed routing alignment. Rather, the longer construction durations associated with the Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments would expose the public to additional construction-related impacts (i.e., air quality, noise, and traffic impacts) as compared to the proposed routing alignment. Because of this, both the Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments were eliminated from further evaluation in this EIR.

3.6 SUMMARY

A range of alternatives that included non-wire alternatives, other transmission alternatives, other routing alignments, and the No Project Alternative were considered. The Non-Wire Alternatives (including demand-side management), the Transmission System Alternatives, and the No Project Alternative were eliminated from further evaluation because they would not meet any of the basic Project objectives.

To identify viable transmission routing alternatives, a Study Area was developed in coordination with input provided by agencies and the public. Transmission routing alternative links that were considered within the Project's Study Area are illustrated in Figure 3.2-1. As detailed in Section 3.5, while the Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments would attain the objectives of the Project, neither of these alternative routing alignments would avoid or minimize impacts that would be generated by the proposed routing alignment. Rather, the longer construction durations associated with these alignments would expose the public to additional construction-related impacts (i.e., air quality, noise, and traffic impacts) as compared to the proposed routing alignment. In addition, the Sawtelle Boulevard and Sepulveda Boulevard Routing Alignments would, individually as compared to the proposed routing alignment, parallel existing substructure utilities, including gas transmission, distribution, and oil pipelines, for a greater distance, thereby providing greater potential for conflict with such utilities.

3.6.1 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(a) and (e)(2) require that an EIR's analysis of alternatives identify the "environmentally superior alternative" among all of those considered. If the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Under CEQA, the goal of identifying the environmentally superior alternative is to assist decision-makers in considering project approval; it does not require an agency to select the environmentally superior alternative.

The No Project Alternative would not create any impacts, temporary or permanent, since no construction activities would occur. However, LADWP must provide safe and reliable electrical service, and the long-term impacts related to increased unreliability would remain. Therefore, it is reasonably foreseeable that the No Project Alternative would lead to the construction of a new transmission line, either overhead or underground, to reliably transfer existing power generated from the SGS. This would result in impacts

equal to or greater than the proposed Project. For these reasons, the No Project Alternative is determined to not be the environmentally superior alternative.

Impacts from the proposed Project are temporary construction impacts directly related to the length of the alignment and duration of construction. Because the proposed Project would be the shortest of the considered alignments, it would have the fewest impacts related to air quality/greenhouse gas emissions, noise, and traffic and transportation. Therefore, the proposed Project is considered to be the environmentally superior alternative.

The proposed Project would also meet the Project objectives to: (1) enhance reliability and improve flexibility of the Scattergood Transmission System; (2) better utilize the energy produced from the SGS; and (3) comply with federally mandated standards.

CHAPTER 4: ENVIRONMENTAL SETTING AND IMPACTS

4.1 INTRODUCTION

Based on the Initial Study and issues raised during the Notice of Preparation (NOP) review period, the following environmental issues are associated with one or more potentially significant impacts of the proposed Scattergood-Olympic Transmission Line Project (SOTLP or Project) and addressed in detail in this section of the Environmental Impact Report (EIR).

- Air Quality and Greenhouse Gas Emissions
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Hazards, Health, and Safety
- Noise
- Paleontology
- Traffic and Transportation
- Water Quality and Hydrology
- Electric and Magnetic Fields (EMF)

4.1.1 METHODS OF ANALYSIS

The impact analysis for each of the resource areas is structured as follows:

Regulatory Framework

The *Regulatory Framework* section presents applicable regulations, plans, goals, policies, and standards associated with the proposed Project.

Environmental Setting

The *Environmental Setting* section describes the existing environmental conditions or ~~"b~~baseline conditions" in the area affected by construction and operation of the proposed Project. The baseline conditions reflect the conditions at the time of the issuance of the NOP (October 8, 2010), and are used for comparison to establish the type and extent of the potential environmental impacts. The environmental setting is described within the defined Project area and a regional vicinity context, with a focus on the particular environmental impacts being discussed.

Thresholds Used to Determine Significance of Impact

The *Thresholds Used to Determine Significance of Impact* section describes the criteria used to determine which impacts should be considered potentially significant. Significance thresholds are based on criteria identified in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Other federal, State, or local standards that have been established relative to particular environmental resource areas are also taken into account when defining significance thresholds.

Environmental Impacts

The *Environmental Impacts* section evaluates how construction and operation of the proposed Project would change existing conditions, resulting in potentially significant impacts on the environment, including direct or reasonably foreseeable indirect effects.

Mitigation Measures

The *Mitigation Measures* section identifies actions to eliminate or reduce potentially significant impacts of the proposed Project. Existing regulations and other public agency requirements, best management practices, and procedures that apply to similar projects are considered in determining what additional Project-specific mitigation may be required to reduce or eliminate impacts.

Significance of Impact After Mitigation

The *Significance of Impact After Mitigation* section indicates whether impacts would remain significant even after application of the proposed mitigation measures. Any impacts that cannot be eliminated or reduced to a level of less than significant are considered unavoidable significant impacts of the proposed Project.

Cumulative Impacts

The *Cumulative Impacts* section describes effects that may be individually limited but cumulatively considerable when measured along with other approved, proposed, or reasonably foreseeable future projects.

4.1.2 RESOURCE TOPICS NOT EVALUATED IN DETAIL

Based on the Initial Study analysis for the proposed Project and comments received during the NOP review period, several potential environmental impacts were determined not to be significant. More specifically, environmental issues that were determined to have no impact or less than significant impact during the Project's scoping period do not require further analysis under CEQA (Section 15128 of the CEQA Guidelines). Reasoning for why these impacts were found not to be significant is provided below and more detailed discussions may be found in the Initial Study included in Appendix A of this document.

Aesthetics

The proposed Project would be entirely underground; only maintenance covers would be visible on the surface. Therefore, it would not permanently affect scenic resources, nor obscure or obstruct existing scenic vistas from off-site pedestrian or vehicular locations, nor degrade the existing visual character or quality of the site and its surroundings. Construction of the proposed Project would not impact any above-ground scenic resources, including trees, rock outcroppings, or historic buildings, because construction activities would occur solely within existing roadway rights-of-way. In addition, the California Department of Transportation does not identify any highways near the Project as scenic highways (California Department of Transportation 2008). Consequently, construction and operation of the proposed Project would not affect scenic resources or views from a designated scenic highway. No impact would occur, and no further study is required.

Agricultural and Forestry Resources

The proposed Project area is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation 2006). Additionally, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is located close to the proposed Project area. No agricultural lands would be converted to a non-agricultural use; therefore, no impact would occur, and no further study is required.

The Project site does not support native tree cover or timber resources, and is not considered forest land (as defined in California Public Resources Code Section 12220(g)), timberland (as defined in California Public Resources Code Section 4526), or a timberland production zone (Government Code Section

51104(g)). Therefore, the Project would not convert forest land to non-forest use, nor would it conflict with existing zoning for, or cause rezoning of, forest land.

Land Use/Planning

The proposed Project involves installation of an underground electrical transmission line; therefore, the proposed Project would not physically divide an established community.

The City of Los Angeles General Plan Framework, Chapter 9 (Infrastructure and Public Services), Objective 9.28 states that the Los Angeles Department of Water and Power (LADWP) will "provide adequate power supply transmission and distribution facilities to accommodate existing uses and projected growth" (City of Los Angeles 2008b). The proposed Project would achieve these objectives.

The proposed alignment would pass through a small portion of Culver City with adjacent land uses designated as residential and commercial land. Per Chapters 17.210 and 17.220 of the Culver City Municipal Code, underground pipeline and utility installations are permitted uses in both residential and commercial areas (City of Culver City 2009).

A portion of the proposed Project is within the California Coastal Zone. In 2009, the California Coastal Commission issued LADWP an exemption to permit requirements of the Coastal Act because the proposed Project is a public utility improvement to meet increased demand of existing customers in order to maintain the existing standard of service. Since that time, the routing alignment of the proposed Project within the Coastal Zone has changed, as has the Project description. LADWP has submitted a request to the California Coastal Commission to amend the originally issued exemption; LADWP will obtain approval from the California Coastal Commission prior to initiating Project construction within the Coastal Zone.

As such, the proposed Project would be consistent with the zoning regulations of the cities of Los Angeles and Culver City, as well as with California Coastal Commission regulations. No impact would occur and no further study is required.

Mineral Resources

Much of the proposed Project area and the entire proposed Project alignment are currently developed, which precludes mining of mineral resources classified Mineral Resource Zone (MRZ)-2 by the State Geologist. As determined by the geology study conducted for the proposed Project, the proposed alignment is located in areas classified as MRZ-1 and MRZ-3. MRZ-1 is defined as "areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence." MRZ-3 is defined as "areas containing mineral deposits the significance of which cannot be evaluated from available data" (Ninyo and Moore 2009). Furthermore, undeveloped areas within the proposed Project area are located within the coastal zone boundary, which is protected from mining and extraction of MRZ-2 mineral resources (City of Los Angeles 2001). As a result, construction and operation of the proposed Project would not impact mineral resources or their extraction. No further study is required.

Population and Housing

The proposed Project would not include the development of any housing and would not induce population growth. Furthermore, although the new electrical transmission line would provide additional capacity from Scattergood Generating Station (SGS) to Olympic Receiving Station (Olympic RS), this capacity would increase the reliability of electrical service and better utilize the power generated at SGS. No new generation at SGS is planned as part of this, or any other, Project. Therefore, the proposed Project would not result in any direct or indirect increases to the local population.

Construction and operation of the proposed Project would be limited to an area within existing roadway rights-of-way. Residences within the proposed Project area would not be removed, displaced, or otherwise affected as a result of the proposed Project, and thus the Project would not trigger the need for replacement housing elsewhere.

Public Services

Permanent increases in the demand for public services are typically associated with a substantial increase in the size of the local population. The proposed Project would not induce population growth in the area, either directly or indirectly. In addition, the construction and operation of the proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities (e.g., schools, parks), or the need for new or physically altered governmental facilities; the Project does not include the construction of new, or physical alteration of, existing governmental facilities. Furthermore, and given that the proposed Project involves the construction and operation of a new underground 230 kV electric transmission line within existing roadways, response times or other performance objectives associated with existing public services would not be impacted; therefore, impacts associated with the construction of public service facilities would not occur.

Recreation

The proposed Project does not include recreational facilities or the construction or expansion of recreational facilities. The proposed Project would not increase population or otherwise affect the operation of existing recreational facilities; therefore, no impact would occur and no further study is required.

Utilities and Service Systems

The proposed Project would not use water or generate wastewater such that construction of new, or expansion of existing, facilities would be needed. Water may be utilized during construction (i.e., dust control); however, the minor amounts needed would come from existing supplies. The Project also does not require the construction of new storm water drainage facilities, or expansion of existing storm water drainage facilities, that could cause significant environmental effects; therefore, no further analysis in this regard is necessary.

Project-related construction activities, such as trenching, for the proposed Project would include excavation of approximately 44,000 cubic yards of soil. The soils would be transported by truck to an appropriate recycling or waste disposal facility with sufficient permitted capacity. Disposal of Project-generated waste would be disposed of in accordance with pertinent regulations and statutes.

4.1.3 CEQA REQUIREMENTS FOR ANALYSIS OF CUMULATIVE IMPACTS

According to Section 15355 of the CEQA Guidelines, cumulative impacts refer to:

> "two or more individual effects which, when considered together are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

Cumulative Projects

There are a number of proposed projects in the same geographic area as the SOTLP. Table 4.1-1 provides a list of probable future projects along with their location, size, and planning status. These projects could

produce related impacts by resulting in similar construction or operational impacts. Figure 4.1-1 illustrates project locations. Past projects are considered in the cumulative analysis as part of the existing environmental setting. The future projects considered for this analysis are those projects that are not yet implemented but are currently under construction or whose future implementation can be realistically predicted. It should be noted that some of the projects listed may not be constructed for various reasons, such as permitting issues or lack of funding.

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TABLE 4.1-1. CUMULATIVE PROJECTS LIST

ID	Project	Location	Use	Size	Planning Status	Estimated Completion Date
County of Los Angeles						
1	Mixed Use Coastal	Parcel 21, Panay Way, Marina Del Rey	Retail Marine Commercial Yacht Club Health Club Parking Structure	3 KSF 11.4 KSF 5 KSF 6 KSF n/a	Regional Planning Commission	Unknown
2	Demolition and Construction of existing Fisherman's Village	13483 Fiji Way, Marina Del Rey; 13755 Fiji Way, Marina Del Rey; 13715-13763 Fiji Way, Marina Del Rey	Amusement Rides Docking facilities	n/a	Routed to Zoning Plan II Section	Unknown
3	Zoning Verification Request for demolition	5550 Grosvenor Blvd., Los Angeles	Residential	n/a	Letter Distributed	Unknown
City of Los Angeles						
4	13-Live/work units,; 42-unit condominium; parking	1730 S. Sawtelle Blvd.	Mixed-use	62.8 KSF	n/a	Unknown
5	259 unit condominium	4170 S. Del Rey Ave.	Condominium	n/a	n/a	Unknown
6	22 A/C Units and 72 apartments	11500 W. Tennessee Ave.	Mixed-use	n/a	n/a	Unknown
7	3 commercial & residential buildings/Med. office buildings and parking structure/retail pharmacy	1901 S. Bundy Dr.	Mixed-use	n/a	n/a	Unknown
8	178-unit Senior housing development & garage	11976 W. Culver Blvd.	Senior Housing	n/a	n/a	Unknown
9	260 Residential units, commercial space, and subterranean parking	7270 W. Manchester Ave.	Mixed-use	256.7 KSF	n/a	Unknown
10	5-Story Mixed Use Project	4131 S. Glencoe Ave.	Residential Commercial	n/a 3.7 KSF	n/a	Unknown
11	12-unit live/work, 83-unit condo, and parking	12301 W. Pico Blvd.	Mixed-use	n/a	n/a	Unknown
12	91-unit condominium	11950 W. Idaho Ave.	Condominiums	n/a	n/a	Unknown
13	70-unit apartment	11904 W. Culver Blvd.	Apartments	n/a	n/a	Unknown
14	Retail building and roof parking	2139 S. Stoner Ave.	Retail	27.6 KSF	n/a	Unknown
15	72-unit Condos and Retail	1508 S. Federal Ave.	Mixed Use Condominiums Retail	n/a n/a 11.4 KSF	n/a	Unknown
16	Site demo and construction of 5-level self-storage/retail facility	1617 S. Beloit Ave.	Self-storage Retail	68.6 KSF 3.5 KSF	n/a	Unknown

ID	Project	Location	Use	Size	Planning Status	Estimated Completion Date
17	244 unit condos above retail/restaurant	13480 W. Maxella Ave.	Mixed-use	361.3 KSF	n/a	Unknown
18	Scattergood Generating Station Unit 3 Repowering Project	12700 Vista Del Mar	Generating Station	174.2 KSF	DEIR 2012	2016
19	LAX Master Plan Projects	LAX	Airport	Range up to 10 MSF	FAA issued ROD in 2005 approving LAX Master Plan	Unknown
City of Culver City						
20	Tilden Terrace	11042-11056 Washington Blvd.	Mixed Use	48.5 KSF	Plan check review	2012
21	Office building addition	13110 Washington Blvd.	Commercial	Adding 1 KSF to existing 2.5 KSF	Under construction	2012
22	Baldwin Site	12803 Washington Blvd.	Office/retail	37.3 KSF	Application approved	2013
23	6- Live/work units	13340 Washington Blvd.	Mixed-use	9 KSF	Under construction	2012
24	Glencoe	13365 Washington Blvd.	Mixed-use retail/ residential Parking Lot	 15.8 KSF 18.6 KSF	Plan check review	2012
25	Faynosd	11501 Washington Blvd.	Mixed-use building including retail, office, and 2 apartments	5.2 KSF	Plan check review	2013
26	Office Building	11957 Washington Blvd.	Office Building	73.6 KSF	Application approved	2013
City of Santa Monica						
27	Creative office building; retail & restaurant	2834 Colorado Ave.	Mixed-use Office Retail/ restaurant	 192 KSF 9 KSF	Recently approved Construction	2013
28	Bio-technology building	1800 Stewart St.	Bio-technology building	153.6 KSF	Under construction	Unknown
29	Creative office building; retail & residential	2848 Colorado Ave.	Mixed-use Office Retail Residential	 100 KSF 11.5 KSF 130 KSF	Construction	2014
30	Retail/post-production & residential	2930 Colorado Ave.	Mixed-use Retail/post-production Residential	 30.6 KSF 365.4 KSF	Construction	2014

ID	Project	Location	Use	Size	Planning Status	Estimated Completion Date
31	Creative office; retail & residential	1681 26th St.	Mixed-use Office Retail Residential	 495 KSF 47 KSF n/a	Construction	2012
City of El Segundo						
32	El Segundo Power Redevelopment Project	301 Vista Del Mar, El Segundo	Power Plant	1,437 KSF	In Construction	2013
33	Aquatics Site Feasibility Study (Three potential sites)	(33 A) Hilltop Park- 301 Maryland St. (33 B) Imperial School Site- 530 E. Imperial Ave. (33 C) Urho Saarhi Swim Stadium- 219 W. Mariposa Ave.	Aquatics Facilities	n/a	City Council Hearing on Final EIR	Unknown
34	Proposition 84 Grant for Acacia Park Improvements and Expansion (Two potential sites)	(34 A) 629 West Acacia Ave. (34 B) 620 West Imperial Ave.	Park	n/a	CEQA Statutory Notice of Exemption filed	Unknown
35	55-unit Condominium/ Townhouse	222 Kansas St.	Condominiums	n/a	n/a	Unknown
36	Office/retail	141 Main St.	Mixed-use Office Retail	 1 KSF 1 KSF	n/a	Unknown
37	Office Building	116 W. El Segundo Ave.	Office	1 KSF	n/a	Unknown

Note:
KSF= 1,000 Square feet
MSF= 1,000,000 Square feet
ROD=Record of Decision

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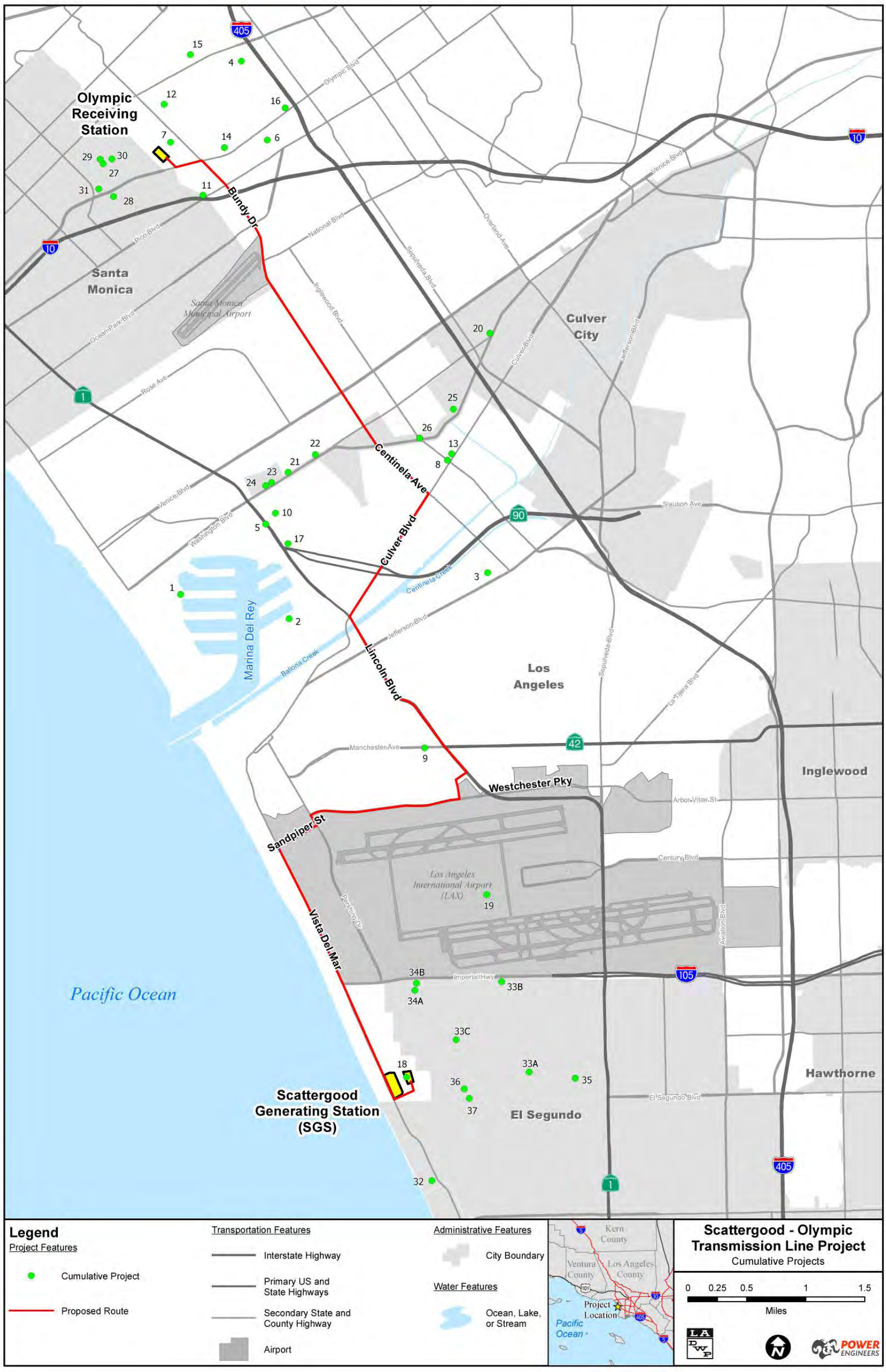
FIGURE 4.1-1. CUMULATIVE PROJECTS



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4.2 RESOURCE TOPICS EVALUATED IN DETAIL

4.2.1 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Air quality is defined by ambient air concentrations of specific pollutants determined by the United States Environmental Protection Agency (EPA) to be of concern with respect to the health and welfare of the general public. Seven major pollutants of concern, called ―criteria pollutants," are carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone (O_3), suspended particulate matter less than or equal to 10 microns in diameter (PM_{10}), fine particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), and lead (Pb). The EPA has established National Ambient Air Quality Standards (NAAQS) for these pollutants. Areas that violate a federal air quality standard are designated as non-attainment areas.

Ambient air quality refers to the atmospheric concentration of a specific compound (amount of pollutants in a specified volume of air) that occurs at a particular geographic location. The ambient air quality levels measured at a particular location are determined by the interactions of emissions, meteorology, and chemistry. Emission considerations include the types, amounts, and locations of pollutants emitted into the atmosphere. Meteorological considerations include wind and precipitation patterns affecting the distribution, dilution, and removal of pollutant emissions. Chemical reactions can transform pollutant emissions into other chemical substances. Ambient air quality data are generally reported as a mass per unit volume (e.g., micrograms per cubic meter of air) or as a volume fraction (e.g., parts per million [ppm] by volume).

Pollutant emissions typically refer to the amount of pollutants or pollutant precursors introduced into the atmosphere by a source or group of sources. Pollutant emissions contribute to the ambient air concentrations of criteria pollutants, either by directly affecting the pollutant concentrations measured in the ambient air or by interacting in the atmosphere to form criteria pollutants. Primary pollutants, such as CO, SO_2, Pb, and some particulates, are emitted directly into the atmosphere from emission sources.

Secondary pollutants, such as O_3, NO_2, and some particulates, are formed through atmospheric chemical reactions that are influenced by meteorology, ultraviolet light, and other atmospheric processes. PM_{10} and $PM_{2.5}$ are generated as primary pollutants by various mechanical processes (for example, abrasion, erosion, mixing, or atomization) or combustion processes. However, PM_{10} and $PM_{2.5}$ can also be formed as secondary pollutants through chemical reactions or by gaseous pollutants condensing into fine aerosols. In general, emissions that are considered ―precursors" to secondary pollutants in the atmosphere (such as reactive organic gases [ROG] and oxides of nitrogen [NOx], which are considered precursors for O_3) are the pollutants for which emissions are evaluated to control the level of these pollutants in the ambient air.

Existing air quality at a given location can be described by the concentrations of various pollutants in the atmosphere. Pollutants are defined as two general types: (1) ―criteria" pollutants and (2) toxic compounds. Criteria pollutants have national and/or State ambient air quality standards. The EPA establishes the NAAQS, while the California Air Resources Board (CARB) establishes the State standards, termed the California Ambient Air Quality Standards (CAAQS). The NAAQS represent maximum acceptable concentrations that generally may not be exceeded more than once per year, except the annual standards, which may never be exceeded. The CAAQS represent maximum acceptable pollutant concentrations that are not to be equaled or exceeded.

Toxic Air Contaminants. Toxic air contaminants (TACs) are substances that have the potential to be emitted into the ambient air that have been determined to present some level of acute or chronic health risk (cancer or non-cancer) to the general public. These pollutants may be emitted in trace amounts from various types of sources, including combustion sources.

Greenhouse Gas Emissions. Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. These emissions occur from natural processes as well as human activities. The accumulation of GHGs in the atmosphere regulates the earth's temperature. Scientific evidence indicates a trend of increasing global temperature over the past century, which a number of scientists attribute to an increase in GHG emissions from human activities. The climate change associated with this global warming is predicted to produce negative economic and social consequences across the globe.

Recent observed changes due to global warming include shrinking glaciers, thawing permafrost, a lengthened growing season, and shifts in plant and animal ranges (Intergovernmental Panel on Climate Change 2007). Generally accepted predictions of long-term environmental impacts due to global warming include sea level rise, changing weather patterns with increases in the severity of storms and droughts, changes to local and regional ecosystems including the potential loss of species, and a significant reduction in winter snow pack.

The most common GHGs emitted from natural processes and human activities include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Examples of GHGs created and emitted primarily through human activities include fluorinated gases (hydrofluorocarbons and perfluorocarbons) and sulfur hexafluoride. Each GHG is assigned a global warming potential. The global warming potential is the ability of a gas or aerosol to trap heat in the atmosphere. The global warming potential rating system is standardized to CO_2, which has a value of one. For example, CH_4 has a global warming potential of 21, which means that it has a global warming effect 21 times greater than CO_2 on an equal-mass basis. Total GHG emissions from a source are often reported as a CO_2 equivalent (CO_2e). The CO_2e is calculated by multiplying the emission of each GHG by its global warming potential and adding the results together to produce a single, combined emission rate representing all GHGs. On a national scale, federal agencies are addressing emissions of GHGs by reductions mandated in federal laws and Executive Orders; most recently, Executive Order 13423 Strengthening Federal Environmental, Energy, and Transportation Management (January 24, 2007) was issued. Several states have promulgated laws as a means to reduce statewide levels of GHG emissions. In particular, AB 32, the California Global Warming Solutions Act of 2006, directs the State of California to reduce statewide GHG emissions to 1990 levels by the year 2020.

The potential effects of proposed GHG emissions are by nature global, and have cumulative impacts. As individual sources, GHG emissions are not large enough to have an appreciable effect on climate change. Therefore, the impact of proposed GHG emissions to climate change is discussed in the context of cumulative impacts.

Regulatory Framework

The Project falls within the South Coast Air Basin (SCAB). The management/enforcement of the air quality standards falls on several different jurisdictions. The EPA has the primary responsibilities under the Federal Clean Air Act. The EPA has transferred a number of responsibilities to the states and, in most cases, regional air quality management districts. The Project is within the South Coast Air Quality Management District's (SCAQMD's) jurisdiction. The Project must comply with applicable federal, State, and local laws. The following summarizes the rules and regulations relevant to the SOTLP.

Federal

The Clean Air Act (CAA) applies to all air emission sources and to all areas within the United States. Regulations adopted under the CAA that would apply to the SOTLP would include the NAAQS, as well as other requirements that have been adopted as part of the SCAQMD's federally approved plans and programs.

As indicated in Federal Register Volume 75, No. 11, Page 2938, the EPA is considering lowering the 8-hour O_3 standard from 0.075 ppm, which is its current level, to a lower level within the range of 0.060 and

0.070 ppm. The lower level is proposed to provide increased protection for children and other —at-risk" populations against O_3 health effects.

State

The CARB has oversight over air quality in the state of California. Regulation of individual stationary sources has been delegated to local air pollution control agencies. The CARB is responsible for developing programs designed to reduce emissions from non-stationary sources, including motor vehicles and off-road equipment.

The CARB and the California Office of Environmental Health Hazard Assessment (OEHHA) are also responsible for developing regulations governing TACs. TACs include air pollutants that can cause serious illnesses or increased mortality, even in low concentrations. The CARB and OEHHA identify specific air pollutants as TACs, develop health thresholds for exposure to TACs, and develop guidelines for conducting health risk assessments for sources of TAC emissions.

In the state of California, AB 32, the California Global Warming Solutions Act of 2006, directs the State of California to reduce statewide GHG emissions to 1990 levels by the year 2020.

Areas that do not meet the NAAQS or CAAQS for a given criteria pollutant are designated as non-attainment areas by the EPA and/or the CARB. Further classifications are given to non-attainment areas to identify the severity and number of violations experienced, and the year in which attainment is anticipated based on implementation of attainment plans.

The national and State ambient air quality standards are shown in Table 4.2.1-1. In California, the CARB is responsible for enforcing both the federal and State air pollution standards.

TABLE 4.2.1-1. NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	National Standards [A]	
			Primary [b,c]	Secondary [b,d]
Ozone (O_3)	8-hour	0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	Same as primary
	1-hour	0.09 ppm (180 µg/m^3)	—	—
Carbon monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	—
	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	—
Nitrogen dioxide (NO_2)	Annual	0.030 ppm (56 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as primary
	1-hour	0.18 ppm (338 µg/m^3)	0.100 ppm (188 µg/m^3)	—
Sulfur dioxide (SO_2)	24-hour	—	75 ppb (196 µg/m^3)	—
	24-hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	—
	3-hour	—	—	0.5 ppm (1,300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	—	—
PM_{10}	Annual	20 µg/m^3	—	—
	24-hour	50 µg/m^3	150 µg/m^3	Same as primary
$PM_{2.5}$	Annual	12 µg/m^3	15.0 µg/m^3	
	24-hour	—	35 µg/m^3	

Pollutant	Averaging Time	California Standards	National Standards [A]	
			Primary [b,c]	Secondary [b,d]
Lead	Rolling 3-month period	—	0.15 µg/m^3	Same as primary
	Calendar Quarter	—	1.5 µg/m^3	Same as primary
	30-day average	1.5 µg/m^3	—	—
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	—	—

Notes:

(a) National standards other than the 1-hour ozone, 24-hour PM_{10}, 24-hour $PM_{2.5}$, and those based on annual averages are not to be exceeded more than once a year. The 8-hour ozone national standard has replaced the 1-hour ozone national standard.

(b) Concentrations are expressed first in units in which they were promulgated. Equivalent units given in parenthesis.

(c) Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the EPA.

(d) Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Local

The SCAQMD is responsible for regulating stationary sources of air emissions in the SCAB, where the Project is located. Stationary sources that have the potential to emit air pollutants are subject to the rules and regulations adopted by the SCAQMD. In addition, the SCAQMD has adopted CEQA Guidelines (SCAQMD 1993) that address both construction and operational emissions. The CEQA Guidelines address the significance of impacts attributable to construction by setting emission thresholds above which impacts are considered significant.

The SCAQMD has adopted rules and regulations that regulate visible emissions, nuisance emissions, and fugitive dust emissions. SCAQMD Rule 401 regulates visible emissions, which include emissions from construction combustion sources. SCAQMD Rule 402 prohibits emissions that may cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, including emissions attributable to construction. SCAQMD Rule 403 (Fugitive Dust) would apply to the proposed Project during construction.

Environmental Setting

The SCAB is considered an extreme nonattainment area for the 8-hour O_3 NAAQS and a non-attainment area for the NAAQS for $PM_{2.5}$. The area is designated as a maintenance area for the NAAQS for CO and PM_{10}. The SCAB is also considered a non-attainment area for the CAAQS for O_3, $PM_{2.5}$, and PM_{10}. The area is considered unclassified or attainment for all other NAAQS and CAAQS for the other criteria pollutants.

Thresholds Used to Determine Significance of Impact

The SCAQMD has adopted significance thresholds in its CEQA Air Quality Handbook (SCAQMD 1993) that define whether or not a project could have a significant impact. These thresholds are arranged in three parts: (1) Appendix G of the CEQA Guidelines; (2) SCAQMD's significance thresholds presenting quantitative emissions thresholds; and (3) SCAQMD's *Final Localized Significance Threshold Methodology*.

The general thresholds indicate that a project could have potentially significant impacts if it could:

Air Quality:

a) Conflict with or obstruct implementation of the applicable air quality plan
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation

c) Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including emissions which exceed quantitative thresholds for ozone precursors); or
d) Expose sensitive receptors to substantial pollutant concentrations including air toxics such as diesel particulates.

Greenhouse Gas Emissions:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment
b) Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The second level of significance set forth in the SCAQMD's significance thresholds presents quantitative emissions thresholds by which to evaluate whether a project's impacts could have a significant impact on air quality. The quantitative emission thresholds are included in Table 4.2.1-2.

TABLE 4.2.1-2. SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Construction	Operation
Criteria Pollutants Mass Daily Thresholds		
NO_x	100 lbs/day	55 lbs/day
ROG	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
TAC, AHM, and Odor Thresholds		
Toxic Air Contaminants (TACs)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Hazard Index ≥ 1.0 (project increment) Hazard Index ≥ 3.0 (facility-wide)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants		
NO_2 1-hour average Annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour PM_{10} annual geometric mean	10.4 μg/m³ construction; 2.5 μg/m³ operations 1.0 μg/m³	
$PM_{2.5}$ 24-hour	10.4 μg/m³ construction; 2.5 μg/m³ operations	
Sulfate SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile)	
Sulfate 24-hour average	25.0 μg/m³ (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state); 35 ppm (federal) and federal)0.50 mg/m	
Lead 30-day average Rolling 3-month average Quarterly average	 1.5 μg/m³ (state) 0.15 μg/m³ (federal) 1.5 μg/m³ (federal)	

μg/m³ = microgram per cubic meter; pphm = parts per hundred million; mg/m³ = milligram per cubic meter; ppm = parts per million; TAC = toxic air contaminant; AHM = Acutely Hazardous Material

To further evaluate the potential for significant impacts associated with the construction phase, SCAQMD's *Final Localized Significance Threshold Methodology* was used (SCAQMD 2008). The Localized Significance Threshold (LST) Methodology provides a look-up table for construction and operational emissions based on the emission rate, location, and distance from receptors, and provides a methodology for air dispersion modeling to evaluate whether construction or operation could cause an exceedance of an ambient air quality standard. The LST Methodology look-up tables are applicable only to sources that are five acres or less in size. The LST Methodology only applies to impacts associated with NO_2, CO, PM_{10}, and $PM_{2.5}$ concentrations.

According to the LST Methodology, the Project is located in Source Receptor Area Zone 2, the North Coastal Los Angeles County Zone. The LSTs for North Coastal Los Angeles County are shown in Table 4.2.1-3, based on the distance to the nearest receptor.

TABLE 4.2.1-3. LOCALIZED SIGNIFICANCE THRESHOLDS, LBS/DAY

Distance to Nearest Receptor, meters[1]	Pollutant					
	NOx	CO	PM_{10} - Construction	PM_{10} – Operation	$PM_{2.5}$ - Construction	$PM_{2.5}$ - Operation
One acre						
25	147	452	4	1	3	1
50	151	721	11	3	4	1
100	175	1,063	82	20	8	2
200	225	2,053	152	37	18	5
500	353	6,747	226	54	77	19
Two acres						
25	208	658	6	1	4	1
50	208	957	19	5	5	2
100	225	1,458	90	22	10	3
200	268	2,555	161	39	21	6
500	346	7,350	232	56	82	20
Five acres						
25	310	1,299	12	3	6	2
50	310	1,500	39	9	8	2
100	326	2,194	110	26	14	4
200	360	3,502	181	43	29	7
500	448	8,465	251	60	95	23

[1]25 meters = 82 feet 50 meters = 164 feet 100 meters = 328 feet 200 meters = 656 feet 500 meters = 1,640 feet
Source: SCAQMD *Final Localized Significance Threshold Methodology* (SCAQMD 2008) and SCAQMD *Methodology to Calculate Particulate* Matter (PM) 2.5 and PM 2.5 CEQA Significance Thresholds (SCAQMD 2006).

Environmental Impacts

The environmental checklist presented in Appendix G of the CEQA Guidelines provides a common set of questions to determine if the project could cause a significant impact to air quality.

Air Quality

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The Project is within the South Coast Air Quality Management District's (SCAQMD's) jurisdiction. The Project would comply with applicable federal, State, and local laws. Construction for the proposed Project was evaluated using SCAQMD's *Final Localized Significance Threshold Methodology* (SCAQMD 2008). The Project would be consistent with SCAQMD thresholds; therefore, impacts would be less than significant.

b) Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The proposed Project's air quality impacts are mainly attributable to the construction of the transmission line. Construction of the SOTLP would occur over a two-year period and involve the following activities:

- surveying of transmission line alignment;
- saw-cutting and pavement breaking;
- trenching;
- excavation;
- conduit bank installation;
- maintenance vault installation;
- cable installation and splicing; and
- commissioning and testing.

Construction is anticipated to commence in late 2012 and be completed by late 2014. Construction emissions would be generated from heavy construction equipment, vehicles, and fugitive dust. Table 4.2.1-4 presents a summary of the daily construction emissions for the Project, for each month during construction, in comparison with the SCAQMD significance thresholds. As shown in Table 4.2.1-4, emissions would be below both the SCAQMD's regional significance thresholds and the LSTs for all pollutants for each phase of construction. Impacts from construction would therefore be less than significant.

TABLE 4.2.1-4. ESTIMATED CONSTRUCTION EMISSIONS

Emission Source	ROG	CO	NOx	SOx	PM_{10}	$PM_{2.5}$
Total Construction Emissions, lbs/day						
Construction Inspection						
Worker Vehicles	0.10	2.71	0.24	0.00	0.08	0.03
Construction Truck Trips	0.12	0.90	1.19	0.00	0.14	0.09
TOTAL	**0.22**	**3.60**	**1.43**	**0.01**	**0.22**	**0.12**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Pot Holing and Survey						
Heavy Construction Equipment	1.88	14.54	13.88	0.02	0.64	0.57
Worker Vehicles	0.10	2.71	0.24	0.00	0.08	0.03
Construction Truck Trips	0.22	1.16	3.19	0.00	0.16	0.12
TOTAL	**2.20**	**18.40**	**17.31**	**0.03**	**0.88**	**0.72**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Conduit Construction						
Heavy Construction Equipment	1.84	9.11	13.29	0.02	0.80	0.71
Worker Vehicles	0.31	8.12	0.72	0.01	0.25	0.08
Construction Truck Trips	2.61	13.15	39.23	0.05	1.74	1.50
Fugitive Dust					2.874.24	0.901.33
TOTAL	**4.76**	**30.38**	**53.24**	**0.08**	**7.03**	**3.62**
TOTAL On Site	**1.84**	**9.11**	**13.29**	**0.02**	**5.04**	**3.90**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Maintenance Vault Installation						
Heavy Construction Equipment	4.24	12.24	38.50	0.05	1.41	1.25

Emission Source	ROG	CO	NOx	SOx	PM_{10}	$PM_{2.5}$
Total Construction Emissions, lbs/day						
Worker Vehicles	0.10	2.71	0.24	0.00	0.08	0.03
Construction Truck Trips	0.37	1.86	5.79	0.01	0.25	0.20
TOTAL	**4.72**	**16.81**	**44.53**	**0.06**	**1.74**	**1.48**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Cable Installation						
Heavy Construction Equipment	1.26	21.22	8.53	0.01	0.29	0.26
Worker Vehicles	0.14	3.61	0.32	0.01	0.11	0.04
Construction Truck Trips	0.57	2.87	8.78	0.01	0.39	0.31
TOTAL	**1.97**	**27.70**	**17.64**	**0.03**	**0.79**	**0.61**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Splicing						
Heavy Construction Equipment	4.48	166.53	2.23	0.01	0.13	0.12
Worker Vehicles	0.42	10.83	0.97	0.02	0.34	0.11
Construction Truck Trips	0.18	1.35	1.78	0.00	0.19	0.13
TOTAL	**5.07**	**178.70**	**4.97**	**0.03**	**0.66**	**0.36**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Testing						
Heavy Construction Equipment	1.66	38.87	6.92	0.01	0.26	0.23
Worker Vehicles	0.14	3.61	0.32	0.01	0.11	0.04
Construction Truck Trips	0.59	2.82	9.80	0.01	0.39	0.28
TOTAL	**2.39**	**45.29**	**17.04**	**0.03**	**0.76**	**0.55**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Scattergood Generating Station Modifications						
Heavy Construction Equipment	1.12	4.00	9.37	0.01	0.49	0.44
Worker Vehicles	0.14	3.61	0.32	0.01	0.11	0.04
Construction Truck Trips	0.59	2.82	9.80	0.01	0.39	0.28
TOTAL	**1.85**	**10.43**	**19.49**	**0.03**	**0.99**	**0.76**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Olympic Receiving Station Modifications						
Heavy Construction Equipment	1.12	4.00	9.37	0.01	0.49	0.44
Worker Vehicles	0.14	3.61	0.32	0.01	0.11	0.04
Construction Truck Trips	0.59	2.82	9.80	0.01	0.39	0.28
TOTAL	**1.85**	**10.43**	**19.49**	**0.03**	**0.99**	**0.76**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Maximum Simultaneous Construction Emissions						
Conduit Construction	4.72	16.81	44.53	0.06	1.74	1.48
Cable Installation	1.97	27.70	17.64	0.03	0.79	0.61
TOTAL	**6.69**	**44.51**	**62.17**	**0.09**	**2.53**	**2.09**
Significance Thresholds	75	550	100	150	150	55
Localized Significance Threshold	N/A	658	208	N/A	6	4

Emission Source	ROG	CO	NOx	SOx	PM_{10}	$PM_{2.5}$
Total Construction Emissions, lbs/day						
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Operational emissions would be confined to inspection and maintenance activities. Table 4.2.1-5 provides an estimate of emissions from these activities. As shown in Table 4.2.1-5, emissions would be below both the SCAQMD's regional significance thresholds and the LSTs, and no significant impacts would result from operation of the SOTLP.

Construction and operational activities would result in a minor amount of TACs. The main TAC that would be emitted from mobile sources associated with construction and with inspection and maintenance activities would be diesel exhaust from vehicles and heavy construction equipment. Diesel exhaust particulate matter is known to the State of California as a carcinogenic substance. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which is defined in the OEHHA guidelines, *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2003a) as 24 hours per day, 7 days per week, 365 days per year, for 70 years. Construction of the SOTLP would occur over approximately two years, where cancer and non-cancer risks due to exposure to diesel particulate matter are predicted for exposure over a 70-year period. Furthermore, construction equipment and truck traffic would move along the SOTLP route throughout Project construction, and would not remain in any single location for an extended period of time.

TABLE 4.2.1-5. ESTIMATED OPERATIONAL EMISSIONS: INSPECTION AND MAINTENANCE ACTIVITIES

Emission Source	ROG	CO	NOx	SOx	PM_{10}	$PM_{2.5}$
Total Operational Emissions, lbs/day						
Worker Vehicles	0.10	2.71	0.24	0.00	0.08	0.03
Inspection and Maintenance Vehicles	0.12	0.90	1.19	0.00	0.67	0.14
TOTAL	**0.22**	**3.60**	**1.43**	**0.01**	**0.75**	**0.17**
Significance Thresholds	55	550	55	150	150	55
Localized Significance Thresholds	N/A	658	208	N/A	1	1
Above Significance Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Because emissions from both construction and operation would be below the applicable significance thresholds, the Project would not result in a significant impact to air quality.

c) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Construction emissions (Table 4.2.1-4) would be below both the SCAQMD's regional significance thresholds and the LSTs for all pollutants for each phase of construction. Operational emissions would be confined to inspection and maintenance activities. These emissions (Table 4.2.1-5) would be below both the SCAQMD's regional significance thresholds and the LSTs. Construction and operational activities would result in a minor amount of TACs. Construction equipment and truck traffic would move along the SOTLP route throughout Project construction, and would not remain in any single location for an extended period of time. Therefore, impacts from construction would be less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

Due to the temporary nature of construction, TAC-related impacts to sensitive receptors located along the proposed Project route, and TACs during operational activities, would be less than significant.

Greenhouse Gas Emissions

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The main source of GHG emissions associated with the SOTLP would be combustion of fossil fuels during construction of the Project. Emissions of GHG for construction were calculated using the same approach as emissions for overall construction emissions. Estimated emissions of GHGs are summarized in Table 4.2.1-6. Emission calculations are provided in Appendix D-1.

Operational emissions would be attributable to inspection and maintenance activities, and were assumed to be similar to construction inspection activities; however, it was assumed that operational activities would occur annually. Operational emissions are presented in Table 4.2.1-6.

TABLE 4.2.1-6. GREENHOUSE GAS EMISSIONS

	CO_2	CH_4	N_2O
Construction Emissions, metric tons			
Heavy Construction Equipment	4,258	0.41	3.37
Worker Vehicles	548	0.03	0.03
Construction Trucks	621	0.01	0.37
TOTAL	**5,427**	**0.45**	**3.77**
Global Warming Potential	**1**	**21**	**310**
CO_2 Equivalent	**5,427**	**9**	**1,169**
CO_2 Equivalent Total	**6,605**		
Amortized Construction Emissions (amortized over 30 years)	**220**		
Operational Emissions, metric tons/year			
Worker Vehicles	1	0.00005	0.00005
Construction Trucks	1	0.00001	0.00023
TOTAL	**2**	**0.00006**	**0.00028**
Global Warming Potential	**1**	**21**	**310**
CO_2 Equivalent	**2**	**0.00126**	**0.0868**
CO_2 Equivalent Total	**2**		
Amortized Construction Emissions	**220**		
Total CO_2e Emissions	**222**		

The total annualized CO_2e emissions of 222 metric tons would be below the SCAQMD's significance threshold of 10,000 metric tons of CO_2e annually for industrial projects. This level of GHG emissions would not result in a significant impact on global climate; therefore, impacts would be less than significant.

b) Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions. The total annualized CO_2e Emissions would be below the California Air Pollution Control Officers Association's recommended annual threshold and below the SCAQMD's

significance threshold. The Project would therefore be consistent with the goals of California Assembly Bill 32; impacts would be less than significant.

Mitigation Measures

The Project would implement standard construction dust control measures to reduce emissions of fugitive dust to the extent possible. The Project would also comply with applicable requirements of the SCAQMD, including the requirements of Rule 403 to control fugitive dust emissions. Because impacts would be less than significant, no mitigation measures are required.

Significance of Impact After Mitigation

No mitigation measures are required.

Cumulative Impacts

As discussed in Section 4.1.3, there are a number of proposed projects in the same geographic area as the SOTLP. Table 4.1-1 provides a list of probable future projects along with their location, size, and planning status. These projects could produce related impacts by resulting in similar construction or operational impacts. Figure 4.1-1 illustrates project locations. Past projects are considered in the cumulative analysis as part of the existing environmental setting. The future projects considered for this analysis are those projects that are not yet implemented but are currently under construction or whose future implementation can be realistically predicted. It should be noted that some of the projects listed may not be constructed for various reasons, such as permitting issues or lack of funding.

The following factors are used to judge the cumulative impact on a resource:

- Nature of the impact;
- geographic or spatial extent of the potential impacting factor;
- geographic or spatial extent of the resource;
- temporal extent of the potential impacting factor;
- regulatory considerations;
- potential for effective mitigation of the impact; and
- potential for recovery of the resource after removal of the impacting factor.

With regard to past and present projects, the background ambient air quality, as measured at the monitoring stations, indicates the concentrations of pollutants from existing sources. Past and present project impacts are therefore included in the background ambient air quality data.

The projects listed in Table 4.1-1 could be under construction or in operation during the time that the SOTLP is under construction. It would be speculative, however, to determine how many projects, or which projects, could be under construction or in operation during SOTLP construction. It is not possible, therefore, to quantitatively evaluate emissions from each project listed in Table 4.1-1, and to evaluate their cumulative impacts.

As discussed in the construction emissions evaluation for the SOTLP, emissions of all criteria pollutants are below both the regional significance criteria and LSTs. Cumulatively considerable impacts would be mitigated to the extent feasible with implementation of dust control measures during construction.

It should be noted that emissions budgets for the SCAB do consider construction emissions as part of their overall regional emissions. In addition, these regional emissions are included in the modeling that is conducted to demonstrate that the SCAB will meet the ambient air quality standards, following

implementation of emission strategies and control measures that are included in the SCAB air quality management plans, which are included in the SCAQMD Rules and Regulations.

The SCAQMD has not developed a significance threshold for cumulative health risks, nor has it identified a methodology for analyzing cumulative health risks by combining impacts from a cumulative project list. The significance threshold is based on the incremental contribution of a project rather than cumulative impacts. The main toxic air contaminant associated with construction is diesel particulate matter. As discussed above, diesel particulate matter has been identified by the State of California as a pollutant that has the potential to result in adverse health effects from chronic (i.e., long-term) exposure. Excess cancer risks are calculated based on a lifetime of exposure (70 years). Chronic exposure is defined by the OEHHA as eight years or longer. Construction of the SOTLP would not result in long-term exposure of individuals to diesel particulate matter. Furthermore, construction of the SOTLP is transient in nature in that it would move from place to place during construction activities. Because construction is temporary, and it is unlikely that several projects would be undergoing construction simultaneously, cumulative construction projects would not contribute to long-term impacts from TACs.

Global climate impacts are by nature cumulative; therefore, the analysis presented to evaluate the SOTLP's direct impacts due to GHG emissions is applicable to cumulative impacts. Because the SOTLP's emissions are temporary and below both the CAPCOA screening threshold of 900 metric tons of CO_2e and the SCAQMD's draft significance threshold of 10,000 metric tons for industrial projects, no impacts are anticipated due to construction of the SOTLP.

4.2.2 BIOLOGICAL RESOURCES

Regulatory Framework

Potential impacts to biological resources as a result of the proposed Project were analyzed based upon the applicable environmental policies and regulations. The primary regulations include the federal Clean Water Act (CWA), the federal Endangered Species Act (FESA), the federal Migratory Bird Treaty Act (MBTA), and California Department of Fish and Game (CDFG) statutes, including the California Endangered Species Act (CESA).

The Project would comply with applicable federal, State, and local ordinances throughout Project construction and operation. Applicable or relevant ordinances are summarized in Table 4.2.2-1.

TABLE 4.2.2-1. SUMMARY OF RELEVANT BIOLOGICAL RESOURCES REGULATIONS

Regulation	Applicability
Federal	
Endangered Species Act of 1973 (ESA): 16 United States Code (USC) Section 1531 et seq., and implementing regulations, Title 50 Code of Federal Regulations (CFR) Section 17.1 et seq.	Designates and protects federal threatened and endangered plants and animals and their critical habitat. Should an action have federal involvement, then consultation with U.S. Fish and Wildlife Service (USFWS) is required, and for potential to affect determinations a project would be required to obtain a Biological Opinion and incidental take authorization for listed species. For an action on private land or with no federal involvement, a Section 10 consultation would be required for potential to affect determinations.
Eagle Act (50 CFR 22.26) and (50 CFR 22.27)	Authorizes limited take of bald and golden eagles. (Note: Neither golden nor bald eagle is expected to occur in the project area, but these regulations are included because eagles do occur in Los Angeles County.) Authorizes the intentional take of eagle nests under certain conditions. Primarily applies to inactive nests except in the case of safety emergencies.
Bald and Golden Eagle Protection Act (16 USC 668)	Prohibits the take, possession, and commerce of bald and golden eagles.

Regulation	Applicability
Migratory Bird Treaty Act (MBTA): 16 USC 703712	Prohibits take of protected migratory birds.
State	
California Endangered Species Act (CESA) of 1984: California Fish and Game Code (CFGC) Sections 2050 – 2098	Protects California's endangered and threatened species, including species designated as candidates for listing.
CFGC Fully Protected Species: Sections 3503, 3503.5, 3511: Fully protected birds Section 4700: Fully protected mammals Section 5050: Fully protected reptiles and amphibians Section 5515: Fully protected fishes	Prohibits the taking of listed plants and animals that are classified as "Fully Protected" in California.
Protected furbearing mammals (California Code of Regulations [CCR], Title 14, sections 460 and 461)	Imposes take regulations over mammals.
CCR 14 sections 670.2 and 670.5)	Lists the plants and animals of California that are declared rare, threatened, or endangered.
Migratory Birds (CFGC section 3513)	Protects Migratory Bird Treaty Act birds.
Nongame mammals (CFGC section 4150)	Makes it unlawful to take or possess any non-game mammal or parts thereof except as provided in the Fish and Game Code or in accordance with regulations adopted by the commission.
Native Plant Protection Act (NPPA) of 1977: CFGC Section 1900 et seq.	Provides specific protection measures for identified populations of State rare and endangered plants.
Streambed Alteration Agreement (SAA): CFGC Section 1600 et seq.	Requires CDFG to review project impacts to Waters of the State (bed, banks, channel, or associated riparian areas of a river, stream, or lake), including impacts to wildlife and vegetation from sediments, diversions, and other disturbances.
Local	
Los Angeles County General Plan	Provides land use designations, goals, and policies for the development and conservation of land within the unincorporated areas of Los Angeles County.
Los Angeles County Significant Ecological Areas (SEAs)	The Los Angeles County General Plan includes SEAs. These areas are regions of special plant and animal community diversity as well as locations of sensitive species. Proposed projects that encroach upon an SEA are subject to the review of the SEA Technical Advisory Committee (SEATAC) in those area that have not been annexed into incorporated cities or are under County review. SEATAC does not have the authority to approve or disapprove a project, but instead acts in an advisory capacity to the planning department.
City of Los Angeles General Plan (Section 2.18 Biological Resources)	Plan requires compliance with measures to conserve and reduce potential to affect threatened, endangered, or candidate species and sensitive open space habitat. Article 6 of the Los Angeles Municipal codes states that no oak tree may be removed from lots larger than one acre in size, except under permit with the Public Works Department.
City of Los Angeles Protected Tree Relocation and Replacement Ordinance (Ordinance 177404)	Southern California native tree species, including oak trees, cannot be removed without a permit unless they pose a threat to human safety, interfere with reasonable development of a property, or interfere with utility transmission.

Inventory Methods

The following inventory methods and analysis are based on information provided in the proposed Project's Biological Resource Assessment (POWER 2011). The primary objective of the biological resource assessment was to document the existing habitat types within the Project area and evaluate the potential for occurrence of sensitive plant and animal species within this Study Area. Special-status species are defined as those protected by FESA or CESA, designated as California Species of Special Concern (SSC), designated as Fully Protected by CDFG; placed on Lists 1A, 1B, or 2 by the California

Native Plant Society (CNPS); or designated as sensitive by the USFWS, California Natural Diversity Database (CNDDB), or County or regional planning documents. The methods used for this analysis included a literature search and a field survey. The Study Area included the Project alignment within the paved roadways and a buffer area of approximately 100 feet on either side of the existing roadway (refer to Figure 4.2.2-1), and the four identified potential staging areas. In addition, a review of available pertinent records and literature was conducted to obtain background information regarding the Project Study Area.

Literature Search

Sensitive biological resources potentially present on the route were identified using the following resources: CDFG Special Animals List (2011), CNDDB (2011), and CNPS (2011). In 2009, LADWP retained ICF Jones & Stokes to conduct a biological resources evaluation for a previously proposed Project routing alignment, a portion of which is consistent with the current Project alignment and the remainder in similar land use and composed of generally the same habitat types. As part of this evaluation, POWER reviewed ICF Jones & Stokes‘ 2009 Biological Resources Technical Report to obtain information, as applicable, regarding biological resources conditions for the current Study Area. The 2009 report contained specific direction from CDFG and USFWS for local endemic species. These species are maintained in this report with the same analysis. Also, the Final Environmental Impact Report (EIR) for the Los Angeles International Airport (LAX) Master Plan (City of Los Angeles 2004) and the Existing Conditions Report for the Ballona Wetlands Restoration Project (Philip Williams & Associates 2006) were reviewed because of these two proposed projects‘ proximity to the Study Area.

Vegetation communities in California have generally been classified by biologists according to either Holland‘s *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986) or Sawyer and Keeler-Wolf‘s *A Manual of California Vegetation* (1995). Holland‘s descriptions were developed as part of the CNDDB, and Sawyer and Keeler-Wolf‘s manual was developed through CNPS. CDFG now has a list of terrestrial natural communities that supersedes all other lists developed by the CNDDB. It is based on Sawyer and Keeler-Wolf‘s manual, but it is also structured to be compatible with previous CNDDB lists such as Holland‘s. The habitat types within the Project site were classified according to Holland (1986), with element codes from Holland (1986), followed by Sawyer and Keeler-Wolf (1995).

Field Investigation

The Biological Resource Assessment included review of aerial images and a reconnaissance level field survey (August, 2011) to confirm existing conditions within the Project Study Area. The Study Area included the affected roads and a buffer of approximately 100 feet on either side of the road.

The survey was conducted by vehicle and on foot. Not all parcels within the buffer were surveyed by transect or entered because some were privately owned, were fenced, or did not support native habitat.

Observed plant and wildlife species were identified to genus and species to the extent possible. Because the alignment is within paved roadways, the observed plant list is provided for reference, as the supporting habitat is not within the construction footprint.

FIGURE 4.2.2-1. EXISTING HABITAT

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Environmental Setting

Project Area Overview

The proposed Project transmission line would traverse an urban environment, especially along the route north of Culver Boulevard. Because of the level of existing disturbance and lack of characteristic habitat requirements, no sensitive plant or animal species is expected to occur in this northern Project area.

South of Culver Boulevard, the alignment would also be within paved roadways that do not provide suitable habitat for sensitive species. Portions of this southern Project area, however, are adjacent to or transect areas of open spaces and sensitive habitat. Along Culver Boulevard and Lincoln Boulevard (State Route 1 [SR 1]), the alignment is adjacent to the Ballona Creek Channel and Wetland Restoration Habitat. Along Vista Del Mar and Sandpiper Street, the Project would be located adjacent to the El Segundo sand dunes, which are a sensitive beach dune habitat area. Surrounding land uses in the southern portion of the transmission line alignment include developed land and open space, which include Dockweiller Beach State Park, the City of Los Angeles El Segundo Blue Butterfly Habitat Restoration Area, and the recently created (2003) Ballona Freshwater Marsh mitigation area. Other portions of this southern area are located along Westchester Parkway, which is a wide ornamental tree-lined road along the north side of LAX, or other smaller streets in urban areas.

The Project would also include an aerial crossing of Ballona Creek and the associated Ballona Wetland Restoration habitat area. Ballona Creek is an open, concrete-lined channel, but is a sensitive biological resource, as it contributes to marsh and coastal wetland habitat.

The four evaluated construction staging areas occur in areas that have been previously disturbed and comprise bare soil, or support primarily disturbance-associated non-native annual plant species.

The proposed Project would be constructed adjacent to but not in sensitive lands associated with County of Los Angeles SEAs (refer to Figure 4.2.2-1). More specifically, the Project would traverse Culver Boulevard and Lincoln Boulevard, which pass through or adjacent to the Ballona Creek and Wetland SEAs. In addition, the Project would be within Sandpiper Street along the northern boundary, and Vista Del Mar along the western boundary, of the El Segundo Dune SEA.

Figure 4.2.2-1 presents a depiction of the mapped habitats and proposed Project alignment survey area used for this impact analysis.

Environmental Setting

Habitat Types

The following information was initially presented in the 2009 biological resources technical report and confirmed to be consistent with conditions observed in August 2011. The Project work limits are classified as developed or urbanized. The evaluated Study Area consists of urbanized and open space land, as detailed below. The following habitat types compose the Proposed Project Study Area:

Southern Foredune (CNDDB Reference Code 21230; 21.100.00)

The southern foredune plant community, also known as the sand-verbena-beach bursage plant community (Sawyer and Keeler-Wolf 1995), is considered rare by the CDFG (2003). Southern foredune plant communities have relatively favorable conditions when compared to active coastal dunes that allow the establishment of plants, which reduces the amount of blowing sand and partially stabilizes the dune. This plant community is typically dominated by succulent perennial herbs and subshrubs. Species such as red sand verbena (*Abronia maritima*), beach bur (*Ambrosia* spp.), and sea rocket (*Cakile* spp.) usually occur in exposed sites, and pink sand verbena (*Abronia umbellata*) and morning-glory (*Calystegia* spp.) in less

exposed sites. Southern foredunes may intergrade with southern dune scrub (CNDDB element codes 21330; 21.100.10).

Species that have been identified (City of Los Angeles 2004) in the foredune habitat adjacent to the Project site are: burbush (*Ambrosia chamissonis*), coast buckwheat (*Eriogonum parvifolium*), lemonade-berry (*Rhus integrifolia*), coast goldenbush (*Ericameria ericoides*), California encelia (*Encelia californica*), bladderpod (*Isomeris arborea*), prickly pear (*Opuntia littoralis*), groundsel (*Senecio flaccidus* var. *douglasii*), California poppy (*Eschscholzia californica*), wild morning glory (*Calystegia macrostegia*), Lewis' evening primrose (*Camissonia lewisii*), beach evening primrose (*Camissonia cheiranthifolia*), deerweed (*Lotus scoparius*), bush lupine (*Lupinus chamissonis*), and pink sand verbena. Characteristic species not present on site include red sand verbena, beach morning glory (*Calystegia soldanella*), and beach spectacle-pod (*Dithyrea maritima*). Non-native species present include several species of iceplant (including *Carpobrotus edulis* and *C. aequilaterus*) and acacia (*Acacia cyclops* and *A. retinodes*).

This plant community occurs within the Study Area, to the east of Vista Del Mar, north of Imperial Highway and south of Ocean Vista Boulevard (Figure 4.2.2-1).

Disturbed Southern Foredune

Disturbed southern foredune was formerly pristine, as evidenced by the sandy substrates and scattered coastal dune elements; however, non-native plants, such as acacia (*Acacia* spp.), ice plant, and exotic annual grass species, currently dominate the vegetation (City of Los Angeles 2004). Native coastal dune vegetation is patchy, and includes burbush, beach evening primrose, bush lupine, pink sand verbena, and deerweed. Coast buckwheat is absent. There are remnant structures belonging to former residences, which include several walls, and abundant debris can be found among the sandy substrate.

This habitat type occurs within the Study Area, to the east of Vista Del Mar, north of approximately Ocean Vista Boulevard, and along Sandpiper Street (Figure 4.2.2-1). The west side of Vista Del Mar is almost completely dominated by ice plant and is considered more disturbed than areas east of Vista Del Mar.

Active Coastal Dunes (CNDDB Reference Code 21100; 21.010.00)

The active coastal dune plant community is dominated by barren, mobile sand accumulations whose size and shape are determined by abiotic site factors rather than by stabilizing vegetation. There is typically no vegetation present and it is represented as a sandy beach. Adjacent to the Project site and within the Study Area, it occurs west of Vista Del Mar at Dockweiller Beach State Park (Figure 4.2.2-1).

Coastal and Valley Freshwater Marsh (CNDDB Reference Code 52410; 52.100.01)

Freshwater marshes occur in nutrient-rich soil that is saturated for most or all of the year. The dominant plants of freshwater marsh communities are mostly perennial monocots that can reproduce vegetatively by underground rhizomes and grow to five to ten feet (two to three meters) in height. At the Ballona Freshwater Marsh, these areas are dominated by freshwater emergent monocots such as cattails (*Typha* spp.) and bulrushes (*Scirpus* spp.).

Within the Study Area, freshwater marsh habitat is limited to the inundated portions of the Ballona Freshwater Marsh that occur to the west of SR 1 between Culver Boulevard and Jefferson Boulevard.

Non-Native Grassland (CNDDB Reference Code 42200; 42.040.00)

The non-native grassland plant community is typically a dense to sparse cover of annual grasses with flowering culms one to two feet (0.2 to 0.5 m) high, with numerous species of flowering native annual

forbs, especially in years of high rainfall. Germination occurs with the onset of the late fall rains; growth, flowering, and seed-set occur from winter through spring. With few exceptions, the plants have completed their life cycle by the summer to fall dry season. Cover during the spring comprises native and non-native annuals.

In the upland areas of the buffer, the dominant non-native grass species include wild oats (*Avena* spp.), brome (*Bromus* spp.), barley (*Hordeum* spp.), and ryegrass (*Lolium* spp.). Native species include tarweed (*Hemizonia* spp.) and nodding needlegrass (*Nassella cernua*). Native and non-native annual wildflowers may include sun cups (*Camissonia* spp.), popcorn flowers (*Cryptantha* spp.), lotus (*Lotus* spp.), plantains (*Plantago* spp.), and California croton (*Croton californica*).

Non-native grassland occurs adjacent to the Project site and within the Study Area and is interspersed along the evaluated alignment. It is not specifically mapped as a distinct habitat because of the multiple overlapping polygons and an effort to graphically present the basic habitats along the proposed route.

Ruderal

The ruderal habitat type is usually dominated by non-native species, which are first to colonize disturbed lands. The disturbances are generally due to human influence, such as construction, unpaved roads or paths, or maintenance. Some ruderal invasive species have a competitive advantage over the natural species, and once established may permanently prevent a disturbed area from returning to its original state.

Within the buffer, several ruderal areas were observed. These areas appeared to be the result of ground disturbance at the edges of the road, various dirt roads, and post-construction areas. The dominant species is mustards (*Brassica* spp.). Two of the proposed construction staging areas occur in empty lots and contain disturbed unvegetated soils, which are probably the result of previous grading. These were classified as ruderal.

Ruderal habitat, like non-native grassland, occurs adjacent to the Project site and within the Study Area, and is interspersed along the evaluated alignment. It is not specifically mapped as a distinct habitat because of the multiple overlapping polygons, and an effort to graphically present the basic habitats along the proposed route.

Developed

The entire Project footprint is classified as urban or developed. A majority of the 200-foot-wide Study Area is also developed, including all areas north of SR 90. Developed areas within the Project site and the Study Area include roadways, buildings, and parking lots.

The hardscape associated with this community, largely paved and built areas, make it unsuitable to support vegetation. This classification also includes ornamental landscaping, such as lawns, trees, shrubs, groundcover, and annual plantings that have been installed and are maintained. Ornamental species observed include magnolia (*Magnolia* spp.), oleander (*Nerium oleander*), olive (*Olea europaea*), bird of paradise (*Strelitzia reginae*), and hawthorn (*Rhaphiolepis* spp.).

Sensitive Plant Communities

The southern foredune community is considered a special community that is either known or believed to be of high priority for inventory in CNDDB (CDFG 2011).

Sensitive Species

Table 4.2.2-2 provides a list of the sensitive plant species and Table 4.2.2-3 provides a list of sensitive wildlife species compiled during the database search and literature review, regulatory agency status, habitat requirements, and potential to occur within the Project site and Study Area. The following discussion highlights the threatened and endangered species with a potential to occur in the Project area. Those species that have been determined as extirpated or absent with recent focused surveys are not discussed, but only listed in the referenced tables.

Because the Project would be constructed within the paved roadway and would not directly impact native habitat, it is determined that no sensitive plant species would be directly affected by the proposed Project. It is also expected that there would be no indirect impacts to result in a significant adverse impact to sensitive plant species. Best management practices would be implemented to control wind or water soil erosion, and such erosion would not be expected to deposit in amounts sufficient to affect existing adjacent vegetation. Watering for dust control and street sweeping would be contained by existing curbs, and not alter natural growth cycles of adjacent vegetation.

Endangered, Threatened or Sensitive Wildlife Species

El Segundo Blue Butterfly

The El Segundo Blue Butterfly (ESB) is a federal-listed as endangered species that inhabits what remains of the El Segundo sand dunes. The ESB emerges during summer when the flowers of its host plant, sea-cliff buckwheat (*Eriogonum parvifolium*), bloom, spending virtually its entire life cycle in intimate association with the flower heads of this plant. The adult lives only a few days, during which time it mates and the female lays eggs. The eggs hatch approximately within a week of their deposition. The larvae feed on the flower heads of the host plant for approximately one month before they molt and begin their pupal stage.

El Segundo sand dunes and suitable ESB habitat occur adjacent to the Project site, east of Vista Del Mar from Imperial Highway north to Sandpiper Street. Along this stretch, habitat that has been confirmed to be occupied by ESB during previous surveys occurs to the east, within areas classified as southern foredune and disturbed southern foredune. These studies were in conjunction with the LAX Master Plan (City of Los Angeles 2004) and identified several blocks immediately adjacent to Vista Del Mar that had high densities of ESB. Habitat to the west of Vista Del Mar is highly degraded and does not support populations of buckwheat. Therefore, it would be considered of low suitability to ESB.

California Least Tern

California least tern nesting colonies are State- and federal-listed as endangered. This shore bird nests between April and August along the coast of California, from San Francisco south to Baja California. The California least tern nests in colonies, primarily on sparsely vegetated sandy beaches, salt flats, and dredged spoil.

Suitable nesting habitat for California least tern is present to the northwest of Culver Boulevard east of Nicholson Street, which historically supported a colony of 10 to 30 pairs. However, this colony has not been active since 1981, although one pair of terns nested there in 2001. This colony was believed to relocate to the Venice Beach site, north of the Marina Del Rey channel. The tidal channels north and south of Culver Boulevard, and Marina Ditch to the southwest of Lincoln Boulevard and Fiji Way, have been documented to support foraging habitat for the Venice Beach nesting colony.

Potential open water habitat for California least tern is present adjacent to the proposed transmission line route where it crosses Ballona Creek along the Lincoln Boulevard overcrossing. This section of Ballona Creek, however, is concrete-lined and is not expected to provide suitable foraging for California least tern.

Belding's Savannah Sparrow
Belding's savannah sparrow is a State-listed as endangered species that inhabits coastal salt marshes year-round. Nesting occurs primarily in pickleweed habitat at the higher elevations of the salt marshes, above the reach of the highest spring tide. They eat a variety of crustaceans, as well as seeds of pickleweed, and may forage in other nearby habitats including along rock jetties.

Suitable habitat for Belding's savannah sparrow occurs in the mid- to high-marsh area of the southern coastal salt marsh plant community. In 2005, focused surveys for Belding's savannah sparrow occurred in marsh habitat southeast of Ballona Creek and resulted in discovery of 11 breeding pairs. The Study Area does not overlap any habitat that would be considered suitable for Belding's savannah sparrow.

Western Snowy Plover
Western snowy plover (*Charadrius alexandrinus nivosus*) is a federal-listed as threatened species (coastal population) that breeds on the Pacific coast from southern Washington to southern Baja California. Primary nesting habitats include sand spits, dune-backed beaches, beaches at creek and river mouths, and saltpans at lagoons and estuaries. Nests generally consist of a shallow scrape lined with beach debris, and typically occur in flat, open, sandy areas with little vegetation. Driftwood, kelp, and dune plants provide cover for chicks and harbor invertebrates, an important food source. Nests are usually found within 300 feet (100 meters) of water, whether ocean, lagoon, or river mouth.

Potential nesting habitat occurs adjacent to the Project site, along Dockweiller Beach State Park on the west side of Vista Del Mar, where an active coastal dune plant community exists. However, since 1949, there have been no documented cases of a snowy plover nesting within Los Angeles County. A systematic survey occurred along Los Angeles County beaches in 2007 (SWCA et al. 2007), and although no nest attempts were confirmed, there was evidence for one nest scrape in Dockweiller Beach State Park. In addition, during the 2007 survey, 21 snowy plovers were observed along this beach in early March, which is considered the start of the breeding season. The closest of these observations was approximately 300 feet from Vista Del Mar. Therefore, the Study Area was determined not to overlap any habitat that would be considered suitable for western snowy plover.

Western Burrowing Owl
The western burrowing owl (*Athene cunicularia hypugaea*) is currently listed as a Species of Special Concern in the state of California. The burrowing owl has been previously proposed to be protected by the Federal Endangered Species Act, but to date is not listed and is not considered to be a candidate for listing. It is a small brown raptor with a height of 9 to 11 inches and long legs. It is a ground-dwelling bird that typically uses burrows made by fossorial mammals, such as ground squirrels, and inhabits a wide array of natural and modified habitats.

The burrowing owl range extends through all states west of the Mississippi Valley and into Mexico, Central America, and South America. In California, it typically inhabits lowlands, including those in the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Habitat typically consists of open, dry, treeless or near-treeless grassland; desert; grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitat; and various urban environments, such as golf courses or vacant lots (Haug et al. 1993; CDFG 2003). For shelters, the burrowing owl is highly dependent on existing rodent or mammal burrows, and may also use cement or wood debris piles or other niches. Burrowing owls are diurnal, typically active at dusk and dawn, but can sometimes be active at night as well. During the day, the owl can be frequently observed at or nearby the entrance to its occupied burrow or on a nearby post or fence. Active burrow entrances are frequently marked by regurgitated pellets of undigested prey items (e.g., bones, exoskeleton), feathers, and other small found objects. Nesting begins in late March and April, and generally lasts until the end of August (Haug et al. 1993). Juveniles may fledge to nearby unoccupied burrows or may stay associated with the parents during the first year and assist their parents with raising the following brood.

The proposed Project would be constructed adjacent to open habitat and areas that have the potential to support burrowing owl; however, no potential burrow or burrowing owl was observed within the Study Area. As of August 2011, the Study Area does not support a potential or active burrowing owl burrow.

Designated Critical Habitat
Critical habitat has been designated by the USFWS (2005) for western snowy plover, which does not overlap the Study Area. However, there are two polygons of critical habitat that occur west of Vista Del Mar: Subunit 21B (43 acres) and Subunit 21C (24 acres). Essential habitat features in these subunits include a wide sandy beach with occasional surf-cast wrack supporting small invertebrates. The 2007 Los Angeles County-wide beach survey confirmed the presence of snowy plover within these critical habitat polygons (SWCA et al. 2007).

Los Angeles County Sensitive Environmental Area
The proposed Project would be constructed adjacent to but not in sensitive lands associated with County of Los Angeles SEAs. More specifically, the Project would traverse Culver Boulevard and Lincoln Boulevard, which pass through or adjacent to the Ballona Creek and Wetland SEAs. In addition, the Project would be within Sandpiper Street along the north boundary, and Vista Del Mar Boulevard along the west boundary, of the El Segundo Dune SEA.

Jurisdictional Waters and Wetlands

The proposed Project would cross Ballona Creek channel at the Lincoln Boulevard (SR 1) overcrossing. This is the only jurisdictional water along the Project alignment. The use of an aerial crossing, however, would not affect this resource. The Study Area does not support potential or known vernal pool habitat. The Project would be constructed adjacent to Ballona Creek wetland and restoration habitat, which occurs to the west of Lincoln Boulevard and the proposed Project construction limits. The Ballona Creek Wetland Habitat Restoration Area is crossed by the proposed alignment along Culver Boulevard north of the Ballona Creek overcrossing. The proposed Project would also be within paved roads in this area, and would not affect biological resources associated with the open space and restoration areas. It is therefore determined that no Jurisdictional Waters or Wetlands would be affected by the proposed Project.

Wildlife Movement Corridors

The Project would not overlap a documented regional wildlife corridor (South Coast Wildlands 2008) and would be located in a heavily urbanized area of Los Angeles. Patches of habitat in this urban landscape are not linked together with similar habitat, but rather occur mostly isolated.

Nesting Birds

Resident and migratory species may nest along the proposed Project alignment. The Project Study Area is within a heavily populated urban area and the available habitat is subject to various human disturbances including road activity, pedestrians, domestic animals, airport activity, and landscape maintenance. Nesting, nevertheless, may potentially occur in the vicinity of the Project, as many species have adapted to urban areas and areas of higher disturbance.

Tables 4.2.2-2 and 4.2.2-3 include discussion developed and presented in the 2009 Biological Resources Technical Report (ICF Jones and Stokes 2009). Other than the removal of the brown pelican from Table 4.2.2-3, which has been removed from FESA and CESA protection due to recovery, these species were maintained in the 2011 biological resources analysis for consistency due to certain portions of the evaluated alignment being maintained for the two studies. No additional focused survey was conducted as part of the 2011 assessment because the current environmental setting is consistent with that of 2009.

TABLE 4.2.2-2. SENSITIVE PLANT SPECIES POTENTIAL TO OCCUR WITHIN STUDY AREA

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
PLANTS				
Ventura Marsh Milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*)	FE SE 1B.1	Historic records indicate this species occurred near coastal marshes or bodies of brackish water, often on well-drained substrates near the water.	Absent	Suitable soils do not occur within Study Area. Considered extirpated from the area and was not observed.
Coastal Dunes Milk-vetch (*Astragalus tener* var. *titi*)	FE SE 1B.1	Coastal dunes.	Low within Study Area. Absent within work limits.	Considered extirpated from the area and was not observed. Work will be within paved areas only.
Parish's Brittlescale (*Atriplex parishii*)	1B.1	Associated with the alkali vernal pools, alkali annual grassland, alkali playa, and alkali scrub components of alkali vernal plains.	Absent	Suitable soils do not occur within the Study Area. Considered extirpated from the area and was not observed.
Lewis's Evening-primrose (*Camissonia lewisii*)	3	Very sandy areas near the coast, generally away from dense grasses and annual non-native weed species.	Moderate within Study Area. Absent within work limits	Populations occur in Ballona Wetlands and LAX. Habitat requirements are absent from the proposed work limits.
Southern Tarplant (*Centromadia parryi* ssp. *australis*)	1B.1	Margins of marshes and in grasslands and areas supporting vernal pools.	Moderate within Study Area. Absent within work limits.	Population of 30 individuals occur in Ballona Wetlands, but none were found in vicinity of LAX. Habitat requirements are absent from the work limits.
Orcutt's Pincushion (*Chaenactis glabriuscula* var. *orcuttiana*)	1B.1	Coastal dunes and bluffs.	Low within Study Area. Absent within work limits.	Not observed during previous focused surveys in suitable habitat within and adjacent to the Study Area. No habitat within work limits.
San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandina*)	FC SE 1B.1	Sandy soils generally in coastal sage scrub.	Absent	No suitable soils within Study Area or work limits. Considered extirpated from the area and was not observed.
Salt Marsh Bird's Beak (*Cordylanthus maritimus* ssp. *maritimus*)	FE SE 1B.2	Salt marshes, slightly raised hummocks and terraces.	Absent	No suitable soils within Study Area or work limits. Considered extirpated from the area and was not observed.
Beach Spectaclepod (*Dithyrea maritima*)	SE 1B.1	Coastal strands, coastal dunes, and scrub and sandy soils below 50 meters above mean sea level.	Low within Study Area. Absent within work limits.	No suitable soils within Study Area or work limits. Considered extirpated from the area and was not observed.
Many-stemmed Dudleya (*Dudleya multicaulis*)	1B.2	Clay soils in barrens, rocky places, or thinly vegetated openings in chaparral, coastal sage scrub, and southern needlegrass grasslands. Typically on north facing or partially shaded slopes	Absent	No suitable soils or habitat characteristics within Study Area.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Suffrutescent Wallflower *(Erysimum insulare* ssp. *suffrutescens)*	4.2	Coastal strands, coastal dunes, and scrub.	Moderate within Study Area. Absent within work limits.	No suitable soils within Study Area or work limits. Considered extirpated from the area and was not observed.
Los Angeles Sunflower (*Helianthus nuttallii* ssp. *parishii*)	1A	Marshes and swamps (coastal salt and freshwater).	Absent	No suitable soils or habitat characteristics within Study Area.
Coulter's Goldfields (*Lasthenia glabrata* ssp. *coulteri*)	1B.1	Ocean bluffs in coastal bluff scrub; on coastal dunes; and on ridge tops, clay soils, and alkaline low places in coastal scrub and valley and foothill grassland.	Low within Study Area. Absent within work limits.	No suitable soils within Study Area or work limits. Considered extirpated from the area and was not observed.
California Spineflower *Mucronea californica*	4.2	Coastal dune habitat and grassland.	Low within Study Area. Absent within work limits.	No suitable soils within Study Area or work limits. Was not observed. Identified on LAX property in 1998 survey.
Mud Nama *(Nama stenocarpum)*	2.2	Intermittently wet areas in marshes and swamps and muddy embankments of ponds and lakes.	Low within Study Area. Absent within work limits.	Species may occur in Ballona Wetlands. Habitat requirements are absent from work limits.
Prostrate Vernal Pool Navarretia (*Navarretia prostrata*)	1B.1	Vernal pools and moist places to 2000 feet above mean sea level.	Absent.	No suitable soils within Study Area or work limits. Considered extirpated from the area and was not observed.
Brand's Star Phacelia (*Phacelia stellaris*)	FC 1B.1	Open areas in coastal scrub and coastal dunes.	Low within Study Area. Absent within work limits.	Considered extirpated from the area and was not observed. No suitable soil within work limits.
El Segundo Dune Flower (*Pholisma paniculatum*)	No listing	Inhabits El Segundo sand dunes.	Moderate within Study Area. Absent within work limits.	Three individuals found at LAX in 1998. Habitat requirements are absent from the work limits.
Ballona Cinquefoil (*Potentilla multijuga*)	1A	Brackish marshes.	Absent.	No suitable soils within Study Area or work limits. Considered extirpated from the area and was not observed.
Salt Marsh Checkerbloom (*Sidalcea neomexicana*)	2.2	Alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, and Mojavean desert scrub.	Moderate within Study Area. Absent within work limits.	Known to occur in the Ballona Wetlands. Habitat requirements are absent from work limits.

CSP – California Special Plant
List 1A – Presumed Extinct in California
List 1B – Rare, threatened, or endangered in California and elsewhere

- 1B.1 – Seriously endangered in California
- 1B.2 – Fairly endangered in California
- 1B.3 – Not very endangered in California

List 2 – Rare, threatened, or endangered in California, but more common elsewhere

- 2.1 – Seriously endangered in California
- 2.2 – Fairly endangered in California
- 2.3 – Not very endangered in California

California Department of Fish and Game
SE = State listed, endangered
ST = State listed, threatened
CSC = California species of special concern
CSP= California special plant
U.S. Fish and Wildlife Service
FE = Federal listed, endangered
FT = Federal listed, threatened

TABLE 4.2.2-3. SENSITIVE WILDLIFE SPECIES POTENTIAL TO OCCUR WITHIN STUDY AREA

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
SNAILS				
Trask's Snail (*Helminthoglypta multijuga)*	No listing	El Segundo sand dunes.	High within Study Area. Absent within work limits.	Surveys conducted upon USFWS request, present in LA/El Segundo dunes. Habitat requirements are absent from work limits.
Tryonia Imitator (California Brackish water Snail) (*Mimic tryonia*)	CNDDB	Coastal lagoons, estuaries, and salt marshes from Sonoma County south to San Diego County.	Absent	Not observed in the area since the 1970s (CNDDB) and was not observed. No suitable soil within work limits.
ARACHNIDS				
Trapdoor Spider *(Aptostichus simus)*	No listing	Southern California coastal dunes.	High within Study Area. Absent within work limits.	Surveys conducted upon USFWS request, present in LA/El Segundo dunes. Habitat requirements are absent from work limits.
El Segundo Crab Spider (*Ebo* new species*)*	No listing	Buckwheat and coastal goldenbush in southern foredune and southern dune scrub plant communities.	Moderate within Study Area. Absent within work limits.	Surveys conducted upon USFWS request, present in LA/El Segundo dunes. Habitat requirements are absent from work limits.
El Segundo Sun Spider *(Eremobates* new species*)*	No listing	El Segundo sand dunes.	Moderate within Study Area. Absent within work limits.	Surveys conducted upon USFWS request, present in LA/El Segundo dunes. Habitat requirements are absent from work limits.
ANOSTRACANS				
Riverside Fairy Shrimp (*Streptocephalus woottoni)*	FE	Deep vernal pools, road cuts, and depressions that retain water through the warm weather of late April and May. Distribution is limited to discrete localities from Los Angeles County (LAX), Orange County, Riverside, and San Diego Counties south to Baja California.	Absent within Study Area and work limits.	Embedded cysts found in the LAX area; no suitable habitat present in the Ballona Wetland due to high salinities or inadequate length or depth of ponding. No suitable habitat within work limits.
San Diego Fairy Shrimp *(Branchinecta sandiegonensis)*	FE	Shallow depressions containing a clay hard pan soil layer. Discontinuously distributed along coastal Southern California and northern Baja California. They are most frequently found in San Diego County, but small populations occur in Orange County.	Absent within Study Area and work limits.	Occurs in the LAX area; no suitable habitat present in the Ballona Wetland due to high salinities or inadequate length or depth of ponding. No suitable soil within work limits.
INSECTS				
Jerusalem Cricket Species (*Stenopelmatus* new species)	No listing	Although not specifically recognized as a sensitive species, this species is considered to be sensitive due to its restricted distribution in declining Southern California coastal habitats. Prefers southern foredune and southern dune scrub plant communities with sand.	Moderate within Study Area. Absent within work limits.	Not observed in area of LAX; however, records exist for Ballona Wetlands. Habitat requirements are absent from work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
El Segundo Jerusalem cricket (*Stenopelmatus* new species)	No listing	Although not specifically recognized as a sensitive species, this species is considered to be sensitive due to its restricted distribution in declining Southern California coastal habitats. Prefers southern foredune and southern dune scrub plant communities with sand.	Moderate within Study Area. Absent within work limits.	Reported in area of LAX but no records for the Ballona Wetlands. Habitat requirements are absent from the work limits.
Sand Roach (*Arenivaga* new species)	No listing	Although not specifically recognized as a sensitive species, this species is considered to be sensitive due to its restricted distribution in declining Southern California coastal habitats. Prefers southern foredune and southern dune scrub plant communities with sand.	Moderate within Study Area. Absent within work limits.	Not observed in area of LAX; however, records exist for Ballona Wetlands. Habitat requirements are absent from work limits.
Dune Scarab Beetle *(Aegilla convexa)*	No listing	Beaches and sand dunes. Lives in burrows beneath the surface of the sand.	High within the Study Area. Absent within work limits.	Surveys conducted upon USFWS request, species detected in LA/El Segundo dunes. Habitat. Habitat requirements are absent within the work limits.
Sandy Beach Tiger Beetle (*Cicindela hirticollis gravida*)	CNDDB	Inhabits clean, dry, light-colored sand in the upper zone of the beach dunes, usually close to non-brackish water.	Low within Study Area. Absent within work limits.	Not observed in area of LAX; however, records exist for Ballona Wetlands. Habitat requirements are absent from work limits.
Senile Tiger Beetle (*Cicindela senilis frosti*)	CNDDB	Found in the middle to upper parts of salt marshes.	Low within Study Area. Absent within work limits.	Not observed in area of LAX; potentially suitable habitat present at Ballona Wetlands, but none reported. Habitat requirements are absent from work limits.
Western Mudflat Tiger Beetle *(Cicindela trifasciata sigmoidea)*	No listing	Although not specifically recognized as a sensitive species, this beetle is considered to be sensitive due to its restricted distribution in declining Southern California coastal habitats. Occurs on mudflats.	Moderate within Study Area. Absent within work limits.	Not observed in area of LAX; however, records exist for Ballona Wetlands. Habitat requirements are absent from work limits.
Globose Dune Beetle (*Coelus globosus*)	CNDDB	Inhabitant of coastal sand dune habitat, typically foredunes and sand hummocks, from Bodega Head in Sonoma County, south to Ensenada, Mexico.	High within Study Area. Absent within work limits.	Observed in area of LAX and Ballona Wetlands. Habitat requirements are absent from work limits.
South Coast Dune Beetle *(Psammodius macclayi)*	No listing	Associated with sand dune systems along the coast and floodplains of river systems.	Moderate within Study Area. Absent within work limits.	Not observed in area of LAX; however, records exist for Ballona Wetlands. Habitat requirements are absent from work limits.
Lange's El Segundo Dune Weevil (*Onychobaris langei*)	CNDDB	Occurs in southern foredune and southern dune scrub plant communities.	Low within Study Area. Absent within work limits.	No records at LA/El Segundo dunes since 1938; however, species has been recorded in the Ballona Wetlands dune system. Habitat requirements are absent from work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Dorothy's El Segundo Dune Weevil (*Trigonoscuta dorothea dorothea*)	CNDDB	Distributed only along coastal Southern California from Point Dume to Point Fermin and is associated with southern dune scrub plant community.	Moderate within Study Area. Absent within work limits.	Not observed in area of LAX; however, records exist for Ballona Wetlands. Habitat requirements are absent from work limits.
El Segundo Scythrid Moth *(Scythris new species)*	No listing	Coastal sand dunes.	Low within Study Area. Absent within work limits.	Survey conducted in LAX area but not detected; historically present but may be extirpated.
Ford's Dune Moth (*Psammobotys fordi*)	CNDDB	Coastal sand dune and sage scrub habitats.	Low within Study Area. Absent within work limits.	Surveys conducted upon USFWS request, but not detected; historically present but may be extirpated.
El Segundo Goat Moth (*Comadia intrusia*)	No listing	El Segundo sand dunes.	Low within Study Area. Absent within work limits.	Surveys conducted upon USFWS request, but not detected; historically present but may be extirpated.
Henne's Eucosman Moth (*Eucosma hennei*)	CNDDB	Endemic to the Los Angeles/El Segundo Dunes in Los Angeles County. Species has been collected from and identified at the dunes in 1984.	Low within Study Area. Absent within work limits.	Despite no reports during focused surveys in area of LAX and no records for the Ballona Wetlands, may be extant. Habitat requirements are absent from work limits.
Busck's Gallmoth (*Carolella busckana*)	CNDDB	Type location for this species from El Segundo sand dunes.	Low within Study Area. Absent within work limits.	Not reported from focused studies in the area; last reported occurrence in the area was in 1939 and is now likely extirpated.
El Segundo Blue Butterfly (*Euphilotes battoides allyni*)	FE	Historically ranged over the entire Los Angeles/El Segundo Dunes and the northwestern Palos Verdes Peninsula in southwestern LA County. Currently distributed on three remnant habitats within its former range supporting coastal sand dunes with coast buckwheat (*Eriogonum parvifolium)*.	High within Study Area. Absent within work limits.	Reported during previous focused surveys in area of LAX but no records for the Ballona Wetlands since the 1980s. Habitat requirements are absent from within work limits.
Monarch Butterfly (*Danaus plexippus*)	CNDDB	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (e.g., eucalyptus, Monterey pine, and cypress).	Moderate within Study Area. Absent within work limits.	Not reported during focused surveys in LAX area; however, was observed roosting in a eucalyptus tree in the Ballona Wetlands. Habitat requirements are absent from work limits but may be present within Study Area.
Wandering (saltmarsh) Skipper (*Panoquina errans*)	CNDDB	Distributed along a narrow coastal strip from Santa Barbara and Ventura to San Diego County. Often associated with host plant, saltgrass (*Distichlis spicata*).	Low within Study Area. Absent within work limits.	Not observed in area of LAX; however, records exist for the Ballona Wetlands. Habitat requirements are absent from work limits but are present within Study Area.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Belkin's Dune Tabanid Fly (*Brennania belkini*)	CNDDB	Found in exposed sandy substrates within southern foredune and southern dune scrub plant communities.	Moderate within Study Area. Absent within work limits.	Species observed in area of LAX, but not observed in area of Ballona Wetlands since mid-1980. Habitat requirements are absent from disturbance area but are present within the buffer.
BONY FISHES				
Tidewater Goby *(Eucyclogobius newberryi)*	FE SSC	Waters of coastal lagoons, estuaries, and marshes, and historically ranged from mouth of the Smith River, Del Norte County to northern San Diego County. The tidewater goby is currently found in only about 96 of 124 historic locations. The species is benthic in nature, living at the bottom of shallow brackish bodies of water, such as lagoons and in lower stream reaches where the water is fairly still but not stagnant.	Absent in Study Area and work limits	No suitable habitat occurs. Ballona Creek is not known to currently support this species. The concrete channel provides no refuge for this species during high flows as would be required for it to be present.
Steelhead Trout (*Oncorhynchus mykiss)*	FE SSC	Native anadromous species that is identified as requiring dissolved oxygen concentration is at least 7 parts per million. In streams, deep low-velocity pools are important wintering habitats. Spawning habitat consists of gravel substrates free of excessive silt. They have been extirpated from at least 11 Southern California streams: San Luis Rey River, San Mateo Creek, Santa Margarita River, Rincon Creek, Maria Ygnacio River, Los Angeles River, San Gabriel River, Santa Ana River, San Onofre Creek, San Juan Creek, San Diego River, and Sweetwater River.	Absent from Study Area and work limits	Historically, likely occurred when the Los Angeles River emptied into the marsh during flood events. No suitable habitat currently observed within Study Area.
AMPHIBIANS				
Arroyo Toad *(Bufo microscaphus californicus)*	FE SSC	Adults typically breed in overflow pools adjacent to the inflow channel of third or greater-order predator-free streams. Prefers exposed pools with a minimum of silt, and within a few hundred feet of fine sandy shores or central bars with stable terraces Young toads require moderately vegetated sandbars. Adult aestivation sites are typically in stream terraces or uplands with friable soils, usually near active use areas but potentially more than 1 kilometer away.	Absent within Study Area and work limits	No suitable habitat or characteristics observed within Study Area or work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
California Red-legged Frog *(Rana aurora draytonii)*	FT SSC	Occurs very locally on the western slopes of the Sierra Nevada and the coastal foothills the length of the state, up to about 4,920 feet. Inhabit pools of streams, marshes, and ponds. Adults feed on a wide variety of aquatic prey, and will move up to a mile through riparian communities under wet conditions, such as rainfall. They prefer shorelines with extensive vegetation, and are vulnerable to the introduction of exotic competitors.	Absent within Study Area and work limits	No suitable habitat or characteristics observed within Study Area or work limits.
Western Spadefoot Toad (*Spea* [*Scaphiopus*] *hammondii*)	SSC	The known elevational range is from sea level to about 4,472 feet. Although they spend the great majority of their life outside water, they require temporary rain pools with water temperatures between 48° and 86°F lasting upwards of 3 weeks. These pools must also lack predators of eggs and tadpoles. Vernal pools are occasionally occupied, but species must have access to friable soils for aestivation during the dry season.	Low within Study Area. Absent within work limits.	Reported for previous surveys this species was observed in area of LAX, but not observed in Ballona Wetlands and is not expected here based on the lack of suitable pooled water. Habitat requirements are absent from the work limits.
TURTLES				
Southwestern Pond Turtle (*Emys marmorata pallida*)	SSC	Locally uncommon in Southern California, in association with permanent or nearly permanent water in a fairly wide variety of habitat types. They are omnivorous, taking a wide variety of plant and animal food. Pond turtles require basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks.	Absent from Study Area and work limits	May have inhabited the original Ballona Wetlands freshwater marsh system, but no observations of this species has been reported. No suitable habitat exists in concrete lined Ballona Creek channel. No habitat within work limits.
Silvery Legless Lizard (*Anniella pulchra pulchra*)	SSC	SSC Prefers sandy or loose loamy soils under the sparse vegetation of beaches, chaparral, or pine-oak woodland, and open, well-shaded terraces in mature riparian natural communities. Leaf litter is commonly present. Soil characteristics, as well as requirements for soil moisture and relatively cool microclimates (about 93°F maximum) limit distribution.	High within Study Area. Absent within work limits.	Previously recorded during surveys in area of LAX and in the Ballona Wetlands. Habitat requirements are absent from work limits.
San Diego Coast Horned Lizard (*Phrynosoma coronatum blainvillii*)	SSC	Found in a wide variety of communities, from grasslands and shrublands to woodlands. Critical factors are the presence of loose soils with a high sand fraction; an abundance of native harvester ants or other insects; and the availability of both sunny basking spots and dense cover for refuge. May not eat the introduced Argentine ant.	High within Study Area. Absent within work limits.	Previously recorded during surveys in area of LAX. Habitat requirements are absent from work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Two-striped Garter Snake (*Thamnophis hammondii*)	SSC	Open freshwater and is rarely found far from this habitat. This species inhabits intermittent streams having rocky beds bordered by willow thickets. It will also inhabit large riverbeds if riparian vegetation is available, and even occur in artificial impoundments if both aquatic vegetation and suitable prey items are present.	Absent from Study Area and work limits	May have inhabited the original Ballona Wetlands freshwater marsh system, but no observations of this species has been reported. No habitat within work limits.
South Coast Garter Snake *(Thamnophis sirtalis ssp.)*	SSC	Endemic to coastal Southern California from the Santa Clara River valley south to northern San Diego County. Maximum known elevation is about 2,270 feet. Prefers permanent water with riparian vegetation, adjacent marsh, and upland habitats.	Absent from Study Area and work limits	May have inhabited the original Ballona Wetlands freshwater marsh system, but no observations of this species has been reported. No habitat within work limits.
BIRDS				
Brant (*Branta bernicla*)	SSC	An abundant small goose of the ocean shores, the Brant breeds in the high Arctic tundra and winters along both coasts. The species is a very locally common winter visitant along the coast.	Low within Study Area as migrant/ winter forager. Absent within work limits.	Previously reported as a winter migrant in area of Ballona Wetlands. Foraging habitat is absent within work limits.
Redhead (*Aythya americana*)	SSC	Breeds in central Alaska, the Great Plains, and locally throughout the West. Also in scattered localities around the Great Lakes. Winters in much of United States and Mexico with open water. Open marshes and ponds with some cover are required for nesting. In winter and migration deeper, more open lakes are inhabited.	Low within Study Area as migrant/ winter forager. Absent within work limits.	Previously reported as a winter migrant in area of Ballona Wetlands. Foraging habitat is absent within work limits.
American Bittern *(Botaurus lentiginosus)*	CNDDB	Breeds in wetlands across most of the United States and Canada. Winters from the southern United States southward into Mexico and the Caribbean. Primarily a winter visitant and uncommon along the coast, but can remain casually through summer. Prefer dense beds of cattails and rushes in freshwater and brackish portions of estuaries.	Low within Study Area. Absent within work limits.	Previously reported within area of Ballona Wetlands. Foraging habitat is absent within work limits.
Least Bittern (*Ixobrychus exilis*)	SSC	It is considered rare along the coast, but records exist from throughout the year. A rare species in the winter, it is more regular in the summer. Prefers freshwater or brackish marshes with tall emergent vegetation for nesting.	Moderate within Study Area. Absent within work limits.	Previously reported within area of Ballona Wetlands. Foraging habitat is absent within work limits.
White-faced Ibis *(Plegadis chihi)*	CNDDB	Breeds across western United States northward to Montana, eastward to western Louisiana, and southward to South America. Winters from southern California and Louisiana southward. Uncommon transient and very local winter visitant along the California coast.	Low within Study Area. Absent within work limits.	Previously reported within area of Ballona Wetlands. Foraging habitat is absent within work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Osprey *(Pandion haliaetus)*	CNDDB	This large, distinctive hawk is highly adapted to a diet consisting almost entirely of fish. One of the most widespread bird species in the world, it was formerly a common and widespread breeder in Southern California, but no longer breeds regularly in California anywhere south of the northern San Francisco Bay.	Moderate within Study Area for foraging habitat. Absent within work limit.	Present at Ballona Wetlands, but is not known to breed or nest there. Foraging habitat is absent from the work limits.
White-tailed Kite (*Elanus leucurus*)	CFP	Found widely across California west of the Sierra Nevada and deserts, from north of the San Francisco Bay south into northern Baja California, Mexico. Nests are flimsy, often not lasting to the next breeding season, and are located low in trees and large shrubs near foraging areas in savannahs and at edges between open habitat and woodland or forest areas. Its diet is largely restricted to small mammals such as voles and mice.	Moderate within Study Area for foraging habitat. Absent within work limit.	Present at Ballona Wetlands, but is not known to breed or nest there. Foraging habitat is absent from the work limits.
Northern Harrier (*Circus cyaneus*)	SSC	It was formerly a fairly common breeder in much of coastal Southern California, but now is nearly extirpated due to loss of native open habitats, especially marshes. It remains fairly common in open country with low human disturbance during migration and in winter. Hunts low to the ground mostly in open country. Small mammals are most common prey.	Moderate within Study Area foraging habitat. Absent within work limits.	Winter residents previously documented in the Ballona Wetland area but no current known pairs, although individual northern harriers are recorded regularly. Foraging habitat is absent within work limits.
Cooper's Hawk (*Accipiter cooperii*)	CNDDB	This medium sized hawk specializing in hunting small birds in closed quarters. It winters widely and fairly commonly in California as birds breeding to the north move in. In Southern California, Cooper's hawks breed primarily in woodland habitats, especially riparian zones, but also oak woodland, walnut woodland, gum trees, and occasionally in dense, abandoned or otherwise undisturbed orchards.	Moderate within Study Area foraging, and Low as breeder. Absent within work limits.	Species is observed at Ballona Wetlands, and may nest in eucalyptus groves or in adjacent residential areas. Suitable habitat is absent from the work limits.
American Peregrine Falcon (*Falco peregrinus anatum*)	SE CFP	This subspecies breeds in small numbers through much of non-desert portions of California. Nesting was historically limited to tall cliffs and similar inaccessible situations although some individuals have used artificial structures in urban areas. Most foraging occurs in areas of accessible shore and open water with high densities of prey species. Within Southern California the species remains generally rare.	Moderate within Study Area foraging, and Low as breeder Absent within work limits.	Species is observed at Ballona Wetlands. It is not known to nest in there or in immediate vicinity. Suitable habitat is absent from the work limits.
California Black Rail (*Laterallus jamaicensis coturniculus*)	SFP ST	Black rail is the smallest rail in North America and has a wide distribution in both coastal and freshwater marshes. Black rails along the west coast tend to nest in the upper reaches of coastal saltmarshes, in areas dominated by rushes and sedges; pickleweed-dominated habitats support few rails.	Low within Study Area. Absent within work limits.	Species has low expectation to occur due to the lack of well-developed coastal salt marsh habitat and the presence of red fox within the Ballona Wetland.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Light-footed Clapper Rail (*Rallus longirostris levipes*)	FE SE CFP	The light-footed clapper rail occurs along the Pacific Coast from Bahia de San Quintin, Baja California, north to Carpinteria Marsh, Santa Barbara County. It is a resident of coastal salt marshes of Southern California and occupies tidal habitats dominated by cordgrass (*Spartina* sp.) and pickleweed.	Less than reasonable	Despite presence of suitable habitat at Ballona Wetlands, this species was not detected during focused surveys and is not expected due to the lack of appropriate habitat and the presence of red fox.
Western Snowy Plover (*Charadrius alexandrinus nivosus*)	FT SSC	The coastal population of western snowy plover breeds along the Pacific coast from southern Washington to southern Baja California on sparsely vegetated beaches backed by dunes, dredged spoils, flats of salt evaporation ponds, and river bars. During winter months it withdraws from the northerly parts of its range southwards.	Low within Study Area for foraging and nesting. Absent within work limits.	Known to occur along Dockweiller State beach. Habitat requirements are absent from work limits. No nesting records exist within the Study Area, although there is suitable foraging habitat.
Long-billed Curlew (*Numenius americanus*)	CNDDB	Breeds in open country from southeastern British Columbia eastward to central Nebraska, and southward to northeastern California and New Mexico. Winters from central California and coastal Texas southward through Mexico. Transients and wintering birds frequent coastal estuaries, agricultural fields, and less commonly sandy beaches.	Low within Study Area as migrant/ winter forager. Absent within work limits.	Observed wintering in area of Ballona Wetlands. Not known to nest there. Foraging habitat is absent from the work limits.
California Least Tern (*Sternula antillarum browni*)	FE SFP SE	A migratory species that nests from April through August along the coast of California from San Francisco south to Baja California, nesting on sparsely vegetated sandy beaches, saltflats, and dredged spoil in colonies. It presumably winters in Central America or northern South America.	Low within Study Area for nesting and foraging. Absent within work limits.	Observed during previous documented focused surveys in area of LAX; forages in the Ballona Wetlands and until the 1980s was documented as a breeder. Habitat requirements are absent within work limits. No recent nesting records exist within the Study Area, although there is suitable foraging habitat.
Elegant Tern (*Sterna elegans*)	CNDDB	Currently found in only five colonies in North America: Isla Rasa and Isla Montague, the San Diego saltworks, Bolsa Chica, and Pier 400 Terminal Island. This species inhabits inshore coastal waters, bays, harbors, and estuaries.	Less Than Reasonable within area of disturbance; Low within Study Area as a forager	Observed roosting in large numbers in the Ballona Wetlands, but are not known to breed at this location. Habitat requirements are absent from disturbance area. No nesting records exist within the buffer, although there is suitable foraging habitat.
Burrowing Owl (*Athene cunicularia*)	SSC	Generally, use burrows already dug by fossorial mammals, such as ground squirrels, but can also use natural cavities and even man-made structures, such as piles of concrete. They are nearly extirpated as a nesting species from many areas of coastal Southern California, but a small influx of burrowing owls occurs in the winter.	Moderate within Study Area Absent within work limits.	Species was present during previous focused surveys in area of LAX; and known to occur in Ballona Wetlands. Suitable habitat is absent within work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Short-eared Owl (*Asio flammeus*)	SSC	This owl was once a locally uncommon breeder and a fairly common winter visitor and migrant in Southern California. It is now apparently extirpated from the region as a breeder and only locally rare at other times. It is a ground-nester in marshes and open fields of native, or at least undisturbed, vegetation with limited predators.	Low within Study Area as a forager. Absent within work limits.	Occasionally observed around Ballona Wetlands, but is not known to breed in this area. Foraging habitat is absent within work limits.
Long-eared Owl (*Asio otus*)	SSC	In Southern California, breeds and roosts in riparian and oak forests, and hunts small mammals at night in adjacent open habitats. They are known to breed at several dozen locales in San Diego and Orange counties (Bloom 1994; personal communication, W. E. Haas), and probably do so in smaller numbers in other coastal Southern California counties as well.	Low within Study Area as a forager. Absent within work limits.	Suitable habitat is absent within work limits. Low likelihood of breeding in vicinity of Ballona Wetland due to lack of suitable habitat. Recorded as an occasional species there.
Vaux's Swift *(Chaetura vauxi)*	SSC	Swifts spend most of their lives in flight, hunting small insects. Vaux's Swifts nest in snags in old growth forests from central California to southeast Alaska (as well as in Mexico southward), and winter from central Mexico to northern South America. They are fairly common as spring and fall migrants in Southern California.	Moderate within Study Area. Absent within work limits.	Species observed in the areas of the Ballona Wetlands as a migrant. Suitable foraging habitat is absent within work limits.
Willow Flycatcher (*Empidonax traillii*)	SE	In California this species is nearly restricted to the Sierra Nevada Mountains and a few populations scattered through Southern California. Several subspecies are recognized. Southern California is within the range of the subspecies *E.t. extimus* (southwestern willow flycatcher); see the account below for more information on that subspecies. During migration, Southern California is host to other subspecies of willow flycatcher passing between breeding areas farther north (Sierra Nevada north to Canada) and their winter range farther south (Central America). These migrants of other subspecies are found in a wide variety of habitats, and are uncommon to fairly common in spring and fall.	Low within Study Area as a migrant/breeder. Absent within work limits	Migrants occasionally reported in the Ballona Wetland area; however, the Study Area is well outside of geographic breeding range for all subspecies except for southwestern willow flycatcher (see the account below for more information on that subspecies). Although the entire species is listed as endangered by the State of California, there is no protection of habitat for non-*extimus* migrants, and thus any such migrants that may occur provide no constraint to the Project. Suitable habitat is absent within work limits.
Southwestern Willow Flycatcher (*Empidonax traillii extimus*)	FE SE	Occurs in riparian habitats along rivers, streams, or other wetlands, where dense growths of willows (*Salix* spp.), *Baccharis* spp., arrowweed, buttonbush, tamarisk, Russian olive, often with a scattered overstory of cottonwood. Throughout the range of *E.t. extimus*, these riparian habitats tend to be rare, widely separated, small and/or linear locales, separated by vast expanses of arid lands.	Low within Study Area as a migrant/breeder. Absent within work limits	Previous surveys for this subspecies found it absent, and it is likely extirpated. Suitable habitat is absent within work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Loggerhead Shrike (*Lanius ludovicianus*)	SSC	Forages in open country of many types (including non-intensive agricultural areas) and nests in small trees and large shrubs, often at the edges of such open areas. Like most birds of prey, loggerhead shrikes generally occur at low densities. The species is widely distributed in Southern California, with some seasonal movements evident.	Moderate within Study Area. Low within work limits.	Species has been recorded in area of LAX and in Ballona Wetlands. Suitable habitat is absent within the work limits but the species may use fences for perching and hunting along the edge of the work limits.
Least Bell's Vireo (*Vireo bellii pusillus*)	FE SE	Dense vegetation low in riparian zones for nesting. The average age of willow vegetation in the immediate vicinity of most nests was between 4 and 7 years. When mature riparian woodland is selected, vireos typically nest in areas with a substantial robust understory of willows, but will also use other plant species. Based on analysis of vireo habitat structure and composition, vireos select sites with large amounts of both shrub and tree cover, a large degree of vertical stratification, and small amounts of aquatic and herbaceous cover.	Low within Study Area. Absent within work limits.	Species was observed historically at Ballona Wetlands. No suitable nesting habitat occurs within Study Area. No suitable habitat or developing habitat would be affected within the work limits.
California Horned Lark (*Eremophila alpestris actia*)	CNDDB	Breeds throughout coastal California and the San Joaquin Valley. This small bird breeds in bare and short-grass areas in open grassland, desert washes, wetland edges, above tree line in mountains, along dirt roads and other disturbed areas, and even in recently burned areas. It is well-adapted to certain types of human disturbance, such as agriculture and cattle grazing, though it cannot tolerate intensive activity at the nest site, which is located directly on the ground.	Low within Study Area. Absent within work limits.	Species was historically observed at Ballona Wetlands, but has not been detected following years of recent surveys; considered a species that could return following habitat restoration. Suitable habitat is absent within work limits.
Coastal California Gnatcatcher (*Polioptila californica californica*)	FT SSC	This species is a year-round resident of coastal sage scrub of several subtypes. This subspecies is found from the Mexican border north to southern and eastern Los Angeles County north to the San Jose Hills, with several small populations known north to the Moorpark area of Ventura County. Its range also extends into southwestern San Bernardino County and western Riverside County.	Low within Study Area. Absent within work limits	Species was observed historically at Ballona Wetlands, but has not been detected following years of recent surveys; considered a species that could return following habitat restoration. Suitable habitat is absent from work limits. Foraging and poor quality nesting habitat present within portions of Study Area.
Yellow Warbler (*Dendroica petechia brewsteri*)	SSC	Nests uncommonly in the upper story of mature riparian communities, especially alder woodland and forest. It is also a common, widespread migrant in spring and fall, occupying varied habitats at that time. It is uncommon and local as a breeder in Southern California, and extremely rare in winter.	Low within Study Area as a breeder. Absent within work limits.	Species observed in the areas of the Ballona Wetlands as a migrant. Suitable habitat is absent within work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Yellow-breasted Chat (*Icteria virens*)	SSC	Nests in extensive low thickets in riparian areas. It is a reclusive insectivore and has the unusual habit of singing both day and night. It is a local and uncommon breeder and rare migrant across Southern California. Known elevation range extends from 180 to at least 4,700 feet.	Low within Study Area as a breeder. Absent within work limits.	Species historically observed in the areas of the Ballona Wetlands. Suitable habitat is absent within work limits.
Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*)	SE	Several of the 17 sub-species of savannah sparrow (*Passerculus sandwichensis*) are residents of coastal salt marshes of the southwestern United States and Mexico. The Belding's savannah sparrow is found from Morro Bay south to El Rosario, Baja California and nests at Ballona Wetlands and several other coastal salt marshes in Southern California. Belding's savannah sparrows occupy coastal salt marshes and estuaries where pickleweed is dominant. They eat a variety of crustaceans as well as seeds of pickleweed and may forage in other nearby habitats including along rock jetties.	Low within Study Area. Absent within work limits.	Present year-round and the only endangered bird species known to currently breed at Ballona Wetlands. Suitable habitat is absent from the work limits and Study Area.
Large-billed Savannah Sparrow *(Passerculus sandwichensis rostratus)*	SSC	This subspecies was formerly common in winter along the length of the Southern California coast in salt marshes and on beaches.	Low within Study Area as a forager. Absent within work limits.	Species was observed historically at Ballona Wetlands, but not recently. Suitable habitat is absent within work limits.
Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)	SSC	Breeds in prairie wetlands and along other western lakes and marshes where tall reeds and rushes are present. Forages in wetlands and surrounding grasslands and croplands. Mainly a spring transient along Southern California coast, although some birds winter in California.	Low within Study Area as migrant.	Does not nest in this area, although it is occasionally observed in Ballona Wetlands as a migrant.
Tricolored Blackbird (*Agelaius tricolor*)	SSC	Most intensively colonial bird species in California, with males and females normally remaining in large flocks together year round. The species is nearly restricted to California, and apparently makes only relatively short-distance seasonal movements. Elevational range is believed to be from near sea level to at least 4,400 feet, though the highest recorded definite breeding site is apparently 3,400 feet. They nest in dense colonies in marshes and occasionally in moist thickets, agricultural fields, or vegetation of sewage treatment plants. They will readily use restored or created wetlands; they may use a site for many years or just one season, with productivity of young varying greatly from year to year.	Low within Study Area as breeder/migrant. Absent within work limits.	Species was observed historically at Ballona Wetlands, but has not been detected following years of recent surveys; considered a species that could return following habitat restoration. Suitable habitat is absent within work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
MAMMALS				
Southern California Saltmarsh Shrew (*Sorex ornatus salicornicus*)	SSC	Occurs in the area of coastal marshes in Los Angeles, Orange and Ventura Counties.	Moderate within Study Area. Absent within work limits.	Species observed during previous surveys in area in Ballona Wetlands in salt grass. Suitable habitat is absent from the work limits.
California leaf-nosed bat *(Macrotus californicus)*	SSC	This insectivorous bat feeds on the ground and in the air. Roosts are in deep tunnels or caves, occasionally in buildings or bridges. It was formerly found throughout Southern California, but is apparently now restricted to the deserts. Historical habitats utilized in coastal areas appear to be poorly known. The species is sensitive to disturbance at roosts, and the extensive human development of coastal Southern California may be the cause of extirpation, though this is speculative.	Low within Study Area as a foraging migrant.	Previous bat surveys along the Ballona Wetland did not detect any species of bat; density of urban development precludes this species. Suitable foraging and day roosting habitat is absent from the work limits and Study Area.
Long-eared Myotis *(Myotis evotis)*	CNDDB	Found in a wide range of habitats, but is most commonly found in mixed coniferous forests, from humid coastal areas to montane forests. Elevation ranges from sea level on the Pacific Coast to 2,830 meters in the mountains of Wyoming. The habitat of *M. evotis* is largely dependent on what the bats use for their day roosts. Other places which function as day roosts are abandoned buildings, cracks in the ground, caves, mines, and loose bark on living and dead trees.	Low within Study Area as a foraging migrant.	Previous bat surveys along the Ballona Wetland did not detect any species of bat; density of urban development precludes this species. Suitable foraging and day roosting habitat is absent from the work limits.
Yuma Myotis Bat (*Myotis yumanensis*)	CNDDB	Distribution of this species ranges across the western third of North America from British Columbia, Canada, to Baja California and southern Mexico. They occur in a variety of habitats including riparian, and scrublands and deserts, and forests. Mating typically occurs in the fall. Females give birth to one young from mid-spring to mid-summer in maternity colonies that may range in size to several thousand; males tend to roost singly in the summer. The species roosts in bridges, buildings, cliff crevices, caves, mines, and trees. Their diet is known to include caddis flies, midges, small moths and small beetles. After feeding, they periodically rest at night roosts where the food is digested.	Low within Study Area as a foraging migrant.	Previous bat surveys along the Ballona Wetland did not detect any species of bat; density of urban development precludes this species. Suitable foraging and day roosting habitat is absent from the work limits.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Townsend's Big-eared Bat *(Corynorhinus townsendii)*	SSC	Occurs throughout the drier portions of California, though details are scant. It is non-migratory, and hibernates from approximately October through April. A wide variety of natural communities are occupied, from mid-elevation forest downward, but mesic sites are preferred. Active year round, they capture prey from in flight, including gleaning from vegetation. They take a variety of prey, but primarily larger insects, especially moths. Flight is slow and maneuverable, and they are capable of hovering. Known roost sites have been in caves, lava tubes, mines, tunnels, buildings and other man-made structures.	Low within Study Area as a foraging migrant.	Previous bat surveys along the Ballona Wetland did not detect any species of bat; density of urban development precludes this species. Suitable foraging and day roosting habitat is absent from the work limits.
Pallid Bat (*Antrozous pallidus pacificus*)	SSC	This bat species is widely distributed in the southwestern United States and northern Mexico. They are locally common across most of California except in the far northwest and in higher portions of the Sierra Nevada. Habitats utilized include a wide variety of grasslands, shrublands, woodlands, and forests, including mixed conifer forest. They appear to be most common in open, dry, rocky lowlands. Roosts are in caves, mines, as well as crevices in rocks, buildings and trees. This is a colonial species that forages low over open ground, often picking up beetles and other species of prey off the ground.	Low within Study Area as a foraging migrant.	Previous bat surveys along the Ballona Wetland did not detect any species of bat; density of urban development precludes this species. Suitable foraging and day roosting habitat is absent from the work limits.
Western Bonneted Bat (Western Mastiff Bat) (*Eumops perotis californicus*)	SSC	Primarily a cliff-dwelling species, where maternity colonies of 30 to several hundred (typically fewer than 100) roost generally under exfoliating rock slabs (e.g. granite, sandstone or columnar basalt). It has also been found in similarly crevices in large boulders and buildings. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 9.8 feet below the entrance for flight. Forages in broad open areas. Generally, this bat is found in a variety of habitats, from dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas.	Low within Study Area as a foraging migrant.	Previous bat surveys along the Ballona Wetland did not detect any species of bat; density of urban development precludes this species. Suitable foraging and day roosting habitat is absent from the work limits.
San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*)	SSC	This subspecies is distributed along the coastal slope from around Point Conception south into Baja California. It requires extensive open spaces, such as grasslands or open sage scrub, usually in fairly level situations. The presence of substantial available cover, either dense grasses or shrubs, appears to be important for day roosts and is often adjacent to more open foraging areas.	Moderate within Study Area.	Species was observed during previous surveys in area of LAX; and known to occur in Ballona Wetlands. Suitable habitat is absent from the disturbance area but present within Study Area.

Species/Natural Communities	Special Status	Habitat Characteristics	Potential to Occur in Study Area	Discussion
Pacific Pocket Mouse *(Perognathus longimembris pacificus)*	FE SSC	The smallest of at least 15 described subspecies of *P. longimembris*. It possesses a fur-lined, external cheek pouch, and is more closely related to kangaroo rats than to other mice. It is an obligate resident of fine-grained sandy soils of Coastal Strand, Coastal Dunes, River and Marine Alluvium, and Coastal Sage Scrub in close proximity to the ocean, and has never been collected more than 2 miles (about 3 kilometers) from the coast or above 600 feet (about 180 meters) elevation. A nocturnal granivore specializing in the seeds of grasses and forbs, it has also been known to eat leafy vegetation and soil dwelling insects. Adapted to variable environmental conditions, this subspecies is known to dig burrows in which they store grain for the winter, and in which they alternate between periods of activity and torpor, aestivation, or hibernation. Once known from eight separate coastal locations from around the southeast corner of the Palos Verdes Peninsula in Los Angeles County southeast to the Mexican border, this species was recently considered extinct, as no confirmed specimens were recorded between 1971 and its rediscovery in 1993.	Low within Study Area due to lack of suitable undisturbed habitat.	This species was determined absent following studies in the most suitable habitat in the area of LAX and Ballona Wetlands. Suitable habitat is absent from the disturbance area but present within the Study Area. This habitat within the Study Area is within close proximity to active travel paved roads and high level of human disturbance.
South Coast Marsh Vole (*Microtus californicus stephensi)*)	SSC	Occurs in the area of tidal marshes in Los Angeles, Orange, and southern Ventura Counties.	Moderate within Study Area.	Species was present during surveys in area in Ballona Wetlands in salt grass. Suitable habitat is absent from work limits.

California Department of Fish and Game
SE = State listed, endangered
ST = State listed, threatened
CSC = California species of special concern
CSP= California special plant
U.S. Fish and Wildlife Service
FE = Federal listed, endangered
FT = Federal listed, threatened

Thresholds Used to Determine Significance of Impact

Significance Threshold Criteria

The following significance thresholds are based on the environmental checklist presented in Appendix G of the CEQA Guidelines, and are used to describe the potential impacts of the proposed Project upon the sensitive biological resources that may occur in the proposed Project area. A project would have a significant impact on biological resources if it would:

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.
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
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.
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 sites.
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
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.

The types of potential direct and indirect impacts on biological resources due to the proposed Project activities are described below. Specific discussion of multi-species habitat conservation plan (MSHCP) requirements for riparian habitat, narrow endemic plant species, other sensitive wildlife, and wildland interface is also presented.

Environmental Impacts

Potential Direct and Indirect Project Impacts

Biological resource impacts can be direct, indirect, or cumulative. Direct impacts occur when biological resources are altered, disturbed, or destroyed during or after Project implementation. Examples include clearing vegetation, encroaching into wetland buffers, diverting surface water flows, and the loss of individual species or their habitats during construction or over time. Indirect impacts that could affect biological resources include elevated noise and dust levels, increased human activity, decreased water quality, and the introduction of invasive wildlife (e.g., domestic cats and dogs) and plants. Cumulative impacts occur when biological resources are either directly or indirectly impacted to a minor extent as a result of a specific project, but the project-related impacts are part of a larger pattern of similar minor impacts. The overall result of these multiple minor impacts from separate projects is considered a cumulative impact to biological resources.

Biological resources impacts may also be classified as temporary or permanent. Temporary impacts can be direct or indirect and are considered short-term and reversible. Examples include elevated noise levels and increased levels of dust during construction. Permanent impacts can be direct or indirect and are not considered reversible. Examples include the removal of vegetation from areas that will have permanent structures placed on them, or landscaping an area with non-native plant species.

For each potential impact associated with the proposed Project, a determination is made regarding level of significance. Conclusions of significance are defined as follows: significant impact, potentially significant impact, less than significant impact, or no impact. If additional specific mitigation would not diminish

significant or potentially significant impacts to a less-than-significant level, the impacts are classified as ―significant unavoidable impacts."

CEQA Significance Threshold Discussion

a) Have 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.

The Project would be constructed within paved roads adjacent to some open space areas that may support sensitive species. Therefore, the Project is determined to have the potential to result in a less than significant impact to sensitive species.

El Segundo Blue Butterfly

The proposed Project would be placed entirely within existing paved roadways and therefore avoid direct impact to El Segundo blue butterfly (ESB) habitat. The Project has a low potential to indirectly affect ESB, particularly during the flight season. However, construction of the transmission line would occur in paved roadways, most of which are actively traveled. Therefore, the construction phase of this Project is not expected to add to existing baseline noise, vehicle-caused ground-borne vibration, and other indirect disturbances. Additionally, no long-term operation and maintenance effect is expected because the facility is not within native habitat or habitat that could support this species.

California Least Tern

The proposed Project would be placed entirely within the developed roadways. Therefore, no direct impact would occur to this species. The Project does not have the potential to indirectly affect California least tern nesting colonies, as none have been recently recorded adjacent to the Study Area. Even if breeding California least terns were present, the construction phase of this Project is not expected to add to existing noise, vehicle-caused ground-borne vibration, and other indirect disturbances. Overall, potential indirect impacts to California least tern nesting colonies and foraging areas from construction of the transmission line would be less than significant. Additionally, no long-term operation and maintenance effect is expected because the facility is not within native habitat or habitat that could support this species.

Belding's Savannah Sparrow

The proposed Project would be placed entirely within existing paved roadways and no direct impact to Belding's savannah sparrow habitat would occur. The Project does not have the potential to indirectly affect Belding's savannah sparrow, as the Study Area does not overlap any suitable southern coastal salt marsh habitat. Additionally, no long-term operation and maintenance effect is expected because the facility is not within native habitat or habitat that could support this species.

Western Snowy Plover

The proposed Project would be placed entirely within existing paved roadways and no direct impact to western snowy plover would occur. The Project has the potential to indirectly affect western snowy plover. However, construction of the transmission line would occur in paved roadways, most of which are actively traveled and where a high level of urban disturbance exists as the baseline. Therefore, the construction phase of this Project is not expected to add to existing noise, vehicle-caused ground-borne vibration, and other indirect disturbances. Overall, potential indirect impacts to western snowy plover from construction of the transmission line would be less than significant. Additionally, no long-term operation and maintenance effect is expected because the facility is not within native habitat or habitat that could support this species.

Western Burrowing Owl

The proposed Project would be placed entirely within existing paved roadways and therefore would not impact western burrowing owl habitat. In addition, they are nearly extirpated as a nesting species from many areas of coastal Southern California, including the Project area. It is therefore determined the proposed Project would not directly affect the western burrowing owl. No potential or active burrow is present within the work limits, and it is unlikely to occur within the staging areas based on level of existing disturbance and lack of suitable potential burrows at these sites.

The Project has the potential to indirectly affect this species should an owl establish residence within the Study Area. However, Project-related construction noise and disturbance is not anticipated to substantively exceed existing levels in the Project area at these locations and, therefore, burrowing owls are not anticipated to be indirectly impacted.

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

The proposed Project would be constructed adjacent to Ballona Channel and Wetland Revegetation Habitat SEAs and the El Segundo Dunes SEA. Construction would occur adjacent to these resources but would not directly impact them because no groundwater or materials would be discharged to the wetlands. With implementation of Mitigation Measure BIO-1, which prevents the discharge of groundwater into the Ballona Creek or Ballona Wetland habitat, the proposed Project is determined to not affect a sensitive natural community.

c) Have a substantial adverse effect on federal 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.

The proposed Project is not expected to directly affect any potential jurisdictional waters or wetland habitat. Project construction would avoid disturbing jurisdictional waters by placing the proposed transmission line in conduit anchored to the existing roadway overcrossing of the Ballona Creek channel. No equipment or material would be placed within the channel bottom during construction, and construction would not result in direct removal, fill, hydrological interruption, or other impact to this resource. In addition, no removal of the concrete channel would occur.

To prevent significant discharge of wind- or water-eroded soils or construction material off site that could be deposited into sensitive habitat—such as wetlands associated with the Ballona Freshwater Marsh—that is adjacent to the proposed Project corridor, a SWPPP would be implemented and include placement of BMPs (e.g., curb inlet protection, burlap/jute sandbags) to prevent discharge of groundwater into adjacent areas and ensure compliance with NPDES requirements. This would also prevent any fuel, oil, or other construction material from entering the adjacent environment. In addition, Mitigation Measure BIO-1 would prevent the discharge of groundwater into the Ballona Freshwater Marsh. Based on the Project location being within existing roadways and implementation of the SWPPP and Mitigation Measure BIO-1, the Project would not affect the adjacent Ballona Wetland Restoration Habitat, nor would it affect vernal pools or other isolated wetland habitat.

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 sites.

The proposed Project is determined to have a less than significant potential to affect, and would not substantially interfere with, movement of resident or migratory fish or other wildlife or impede the use of

native wildlife nursery sites. The Project may be constructed during the typical bird breeding season and could indirectly affect an active nest. However, Mitigation Measure BIO-2 is provided to maintain this potential to affect at a less than significant level through biological monitoring and the requirement to conduct preconstruction nest surveys at the Lincoln Boulevard crossing over Ballona Creek during the appropriate nesting season. This would provide direction and guidance to reduce the potential to affect and to minimize impact to active nests. Other than the Pacific Flyway, no wildlife corridor is identified as present in the Project area. The Project would not be expected to affect migratory birds because it is an underground facility in a high density, illuminated urban setting.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The Project has a less than significant potential to conflict with local policies and ordinances protecting biological resources. The Project may require some tree trimming in urban areas, but no heritage tree or native tree would be affected. The Project would not affect areas guided by the SEA Technical Advisory Committee as per the Los Angeles County General Plan (i.e., Ballona Creek Channel and Wetland Revegetation Habitat SEAs [LA County] and the El Segundo Dunes SEA).

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.

The proposed Project is determined to not conflict with an adopted Habitat Conservation Plan or other approved local, regional, or State plan.

Critical habitat for western snowy plover (USFWS 2005) does not overlap the Project site (Figure 4.2.2-1). The Project would not reduce the amount of critical habitat, and no impacts would occur. Additionally, no long-term operation and maintenance effect is expected because the facility is not within native habitat or habitat that could support this species.

Mitigation Measures

BIO-1: The proposed Project would not discharge groundwater to the Ballona Creek or Ballona Wetland habitat.

BIO-2: If construction activities on or around Lincoln Boulevard Bridge crossing over Ballona Creek are scheduled to occur during the breeding season (February 1 to August 31), preconstruction surveys for nesting birds shall be conducted. The preconstruction nest survey would include a visual examination of potential nest sites beneath the bridge.

If nesting birds are found, a buffer around the nest would be erected to ensure that Project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails due to non-Project related reasons.

Nesting opportunities on the underside of the bridge may also be limited by covering areas of the exposed bottom deck with temporary netting or removing unoccupied, inactive mud nests or partial nests that may be present from previous nesting attempts. A Project Biologist with nest deterrent experience will evaluate and accept proposed nest deterrent efforts prior to the start of nesting season (February 1).

Significance of Impact After Mitigation

After implementation of Mitigation Measures BIO-1 and BIO-2, impacts would be less than significant.

Cumulative Impacts

In respect to biological resources, the proposed Project would not result in a significant adverse cumulative impact. The construction activity would present temporary disturbances that are within baseline conditions present within the urban Project area. The proposed action would not reduce or contribute to a trend of reducing acreage of native habitat, critical habitat, or open space. The proposed Project would not directly impact or contribute to a cumulative trend of direct impact to a sensitive or protected plant or wildlife species, water resource, or natural community or open space. The potential indirect impacts of the proposed Project would be less than significant with the proposed Mitigation Measures. There would be no cumulative indirect impact to sensitive biological resources. The Project area comprises high density urban areas with discreet open space. The proposed Project would not exceed baseline conditions for the region in respect to noise or activity that may contribute to temporary Project impacts.

4.2.3 CULTURAL AND PALEONTOLOGICAL RESOURCES

Regulatory Framework

Cultural Resources

Under CEQA, a project is considered to have a significant effect on cultural resources if it causes a substantial adverse change in the significance of a historical resource or unique archaeological resource or impacts Native American human remains.

Historical Resources

According to CEQA, lead agencies are required to identify historical resources that may be affected by a proposed project. A historical resource is a cultural resource that is eligible for listing in the California Register of Historical Resources (CRHR) (PRC §5024.1, Title 14 CCR, Section 4852). For a resource to be eligible for the CRHR, it must satisfy one or more of the following criteria:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of the history and cultural heritage of California or the United States.
2. It is associated with the lives of persons important to the nation or California‘s past.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the state or the nation.

Generally, a resource must retain integrity, which is defined as the authenticity of a historical resource‘s physical identity, evidenced by the survival of characteristics that existed during the resource‘s period of significance. California Office of Historic Preservation (OHP) guidance specifies that integrity is a quality that applies to historical resources in seven ways: location, design, setting, materials, workmanship, feeling, and association.

Generally, resources must be fifty years old or older (except for rare cases of structures of exceptional significance).

Unique Archaeological Resources

Under CEQA, the lead agency must also determine whether a proposed project will have a significant effect on unique archaeological resources. PRC 21083.2(g) states:

—…a unique archaeological resource‘ means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.”

A non-unique archaeological resource does not meet these criteria and does not need to be given further consideration other than simple recording unless it happens to qualify as a historical resource.

Native American Human Remains

CEQA also says (Section 15064.4) that when an initial study identifies the existence or probable likelihood of Native American human remains within the Project, a lead agency would work with the appropriate Native Americans as identified by the Native American Heritage Commission (NAHC).

Paleontological Resources

State of California

California Public Resources Code (PRC §5097.5) states:

—No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this section, ‗public lands‘ means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

Under CEQA Guidelines, a project must be evaluated for its potential to cause a significant impact to paleontological resources, which are included with cultural resources.

The Society of Vertebrate Paleontology (SVP) has established its own —Standard Guidelines for the Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontological Resources” (SVP 1994). These guidelines are a set of procedures and standards for assessing and mitigating impacts to vertebrate paleontological resources. These guidelines are accepted by most agencies as the standard for mitigation of impacts to paleontological resources.

Environmental Setting

Cultural Resources

Methodology

A records search was conducted on July 13, 2011 at the South Central Coastal Information Center (SCCIC), housed at California State University, Fullerton. California Historical Resources Information System (CHRIS) records were reviewed. The records search provided locations and other data on previously recorded archaeological and architectural resources and the locations of prior cultural resource surveys. Also consulted were the National Register of Historic Places (NRHP) and Archaeological

Determinations of Eligibility (ADOE) provided by the SCCIC, CRHR, cultural heritage landscape lists, and California Points of Historic Interest (CPHI). Historic aerial photographs, dated 1928, 1938, 1947, 1952, 1965, 1976, 1989, 1994, and 2002 were reviewed. In addition, historic maps, consisting of the USGS 7.5 topographic maps *Sawtelle* (dated 1924 and 1934) and *Venice* (dated 1925 and 1934 revised 1942) were reviewed.

Native American Coordination

On July 15, 2011, the California NAHC was contacted regarding Native American groups that might have historic ties to, and interest in, the proposed Project area, as well as a Sacred Lands File Search. In response, the NAHC stated that their files indicate that Native American cultural resources are identified in the Project area; however, the locations of the resources were not provided. The NAHC also provided a list of nine Native American contacts to be informed of the Project. On August 8, 2011, letters were sent to the contacts providing information about the Project. The letters were sent to the following:

- Mr. Ron Andrade, LA City/County Native American Indian Commission Director
- Ms. Cindi Alvitre, Ti'At Society/Inter-Tribal of Pimu Chairwoman-Manisar
- Mr. John Tommy Rosas, Tongva Ancestral Territorial Tribal Nation Administrator
- Mr. Anthony Morales, Gabrieliño/Tongva San Gabriel Band of Mission Indians Chairperson
- Mr. Sam Dunlap, Gabrieliño/Tongva Nation Chairperson
- Mr. Robert Dorame, Gabrieliño/Tongva Indians of California Tribal Council, Tribal Chair/Cultural Resources
- Mr. Bernie Acuna, Gabrieliño/Tongva Tribe Councilman
- Ms. Linda Candelaria, Gabrieliño/Tongva Tribe Councilwoman
- Mr. Andrew Salas, Gabrieliño Band of Mission Indians Chairperson

On September 2, 2011, a letter was received from Ms. Christina Swindall Martinez, secretary for the Gabrieliño Band of Mission Indians. Ms. Martinez requested that one of their certified Native American monitors be on site during all ground-disturbing activities.

Cultural Setting

Prehistoric Context

The Project area is located in the Los Angeles coastal basin. Research indicates prehistoric occupation in this general Southern California region 12,000 years prior to the Spanish expeditions (Bean and Smith 1978; Moratto 1984). Southern California regional chronology is defined by major stages of cultural change. Four general cultural periods, or horizons as defined by Wallace (1955), are used to describe prehistoric occupation in Southern California. These are the Early Hunter (pre-8,000 before present [BP]), Milling Stone (8,000 BP to 3,500 BP), Intermediate (3,500 BP to 1,100 BP), and Late Periods (1,100 BP to 350 BP).

Ethnography

The Project area is within the ethnographic boundaries of the Gabrieliño tribe; primary villages were occupied year-round and smaller secondary gathering camps were occupied seasonally by small family groups. Throughout Gabrieliño territory, there may have been 50 to 100 villages occupied at any one time, with the villages containing 50 to 200 people each (McCawley 1996).

The settlement patterns of the Tongva have been studied by several scholars; Altschul, Homberg, and Coillek-Torrello have recently conducted extensive studies of the Ballona area. Several Gabrieliño/Tongva villages (including CA-LAN-62, CA-LAN-63 and CA-LAN-64) have been recorded in the Playa Vista area. Altschul et al. summarize the settlement pattern for this area as being one that used the wetland area sporadically until about 3,000 years ago, at which time the Ballona lagoon area had

been formed. Occupation in the area became more continuous from 3,000 to 1,000 BP. Resources tended to be large villages with burials and extensive middens that included artifacts and shell (Van Horn 1987b; Altschul et al 1992, 2005, 2007).

By 1,000 BP, the Ballona was almost completely silted in creating an estuary; consequently, habitation sites shifted from the top of the bluff to the base of the bluff, near the water. The majority of information comes from sites within the Del Rey and Ballona areas, including CA-LAN-61 and LAN-63. Research from these resources indicates an open lagoon habitat provided abundant shellfish resources. After 1,000 BP, sites again shifted, from the base of the bluffs to the edge of the lagoon, where a broad mixture of terrestrial and marine resources was exploited.

This area was developed in the late 19th century, covered by urban construction; many resources were destroyed or remain unrecorded or inadequately dated.

Historic Context

Three historical periods are generally recognized in California: the Spanish exploration and settlement of California during the 18th and 19th centuries (the California Missions), the brief tenure of Mexico (Mexican Independence), and the subsequent American annexation of California (United States‘ Control of California).

The colonization of Alta California was tied to the Spanish settlements along the Gulf of California. The Spanish missionization and settlement of California began in 1768. The Mission San Gabriel was founded in 1771; the local indigenous population, the Tongva group, was disrupted by the missionization process. This process —converted" the native inhabitants, who were brought into the mission and subjected to their religious and occupational system. Within a short period of time, the native Tongva language and culture all but vanished.

In 1821, Mexico gained independence from Spain. The missions were secularized in the 1830s and large portions of Mission lands were granted between 1831 and 1846. The Project area is in what was part of the –Rancho Sausal Redondo," a land mass of nearly 25,000 acres that extended from the areas as far west as what is now Playa del Rey, as far east as Inglewood, and as far south as Redondo Beach. Later, with the Land Boom of the 1880s, the large ranchos of Los Angeles County, including Rancho Sausal, were broken up and sold in smaller parcels. Freeman, then-owner of the Rancho lands, ultimately sold his prime orchard land to a land development company who sold parcels of 20-, 40-, 80-, and 160-acre plots. In 1887, the California Central Railway laid tracks to Redondo Beach, and eventually the small parcels became the cities of Inglewood, El Segundo, Redondo, and Playa Del Rey (Faris 1988).

In 1894, Andrew Bennet leased over 2,000 acres of Rancho Sausal and renamed it Bennet Rancho. Bennet created a makeshift landing strip, later to be known as Mines Field, and allowed early pioneer aviators to use it for landings and departures. During the 1920s, the shoreline area of Los Angeles, previously used for agriculture, began to be developed for commercial and residential use. Along the coast, the small neighborhood of Surfridge was graded and developed by Dickinson and Gillespie on the knoll overlooking the Pacific Ocean (Gust 2010).

In 1928, Mines Field was chosen as the location of the municipal airport. The City of Los Angeles purchased the airport in 1937 and later added nearly 2,000 acres to the property. Mines Field was renamed Los Angeles International Airport (LAX) in 1949. As the airport grew to accommodate the burgeoning population, the neighborhood of Surfridge, then under Runways 24 and 25, was eventually deemed uninhabitable and taken by eminent domain by the Airport Commission in the 1970s due to health and safety concerns, finally to be demolished.

Paleontological Resources

The Project area is situated in the Los Angeles Basin, south of the Santa Monica Mountains and adjacent to the Pacific Ocean. The physiographical, geological and ecological zones represented in the Project area are best described as alluvial valleys of the Los Angeles basin. This area is part of the California geomorphic province known as the Peninsular Ranges. The Peninsular Ranges are a series of ranges separated by northwest trending valleys, sub-parallel to faults branching from the San Andreas Fault.

During the Pleistocene Epoch (1.8 million to 11,000 years ago), California made a transition from shallow marine to terrestrial as the ocean receded. In the Los Angeles area, the developing terrestrial landscape had a climate that was moister than the present, with free-flowing streams and relatively abundant standing water. A dynamic community of large animals migrated into Southern California during this period, attracted by the abundant resources and fleeing the ice sheet encroaching from the north. The community included large herbivores like North American native horses, camels, and mastodon, plus Eurasian immigrants like mammoth and bison. They were joined by immigrants from South America, including ground sloths and llama. The herbivores were pursued by predators such as the short-faced bear, dire wolf, saber-toothed cat, and American lion. Most of these large animals became extinct at the end of the last ice age.

The Project route consists largely of rock units too young to contain fossils. However, potential fossil-bearing rocks up to 1.8 million years old outcrop in some areas. The Pleistocene Epoch rock units include San Pedro Formation, Older Alluvial Fan Deposits, and Older Eolian Deposits (Dibblee 2007, Yerkes and Campbell 2005, Saucedo et al. 2003). The Pleistocene to Holocene (126,000 to 2,000 years ago) rock units include Younger Alluvial Flood Plain Deposits, recent Beach Deposits, recent marshy Clay, recent Eolian Deposits, recent Eolian Fan Deposits, and artificial fill.

Geological Units

The two geologic formations that underlie the Project area that are characterized as having high sensitivity for paleontological remains include the San Pedro Formation (Qsp) and the Quaternary Older Alluvial Fan (Qof and Qoa). The proposed transmission line alignment would cross the San Pedro Formation (Qsp) for 0.28 mile and Quaternary Older Alluvial Fan (Qof/Qoa) for 1.62 miles. No moderately sensitive geologic formations (e.g., Quaternary Younger Alluvial Flood Plain Deposits) are located within the Project area. Low sensitivity formations that underlie the Project area include: Quaternary Alluvial Flood Plain Deposits (Qa), Quaternary Clay (Qc), and Quaternary Recent Alluvial Fans (Qf). Areas along the proposed Project alignment that are characterized as having high sensitivity for paleontological remains represent areas that will be monitored during Project construction (refer to Figure 4.2.3-1).

San Pedro Formation (Qsp)

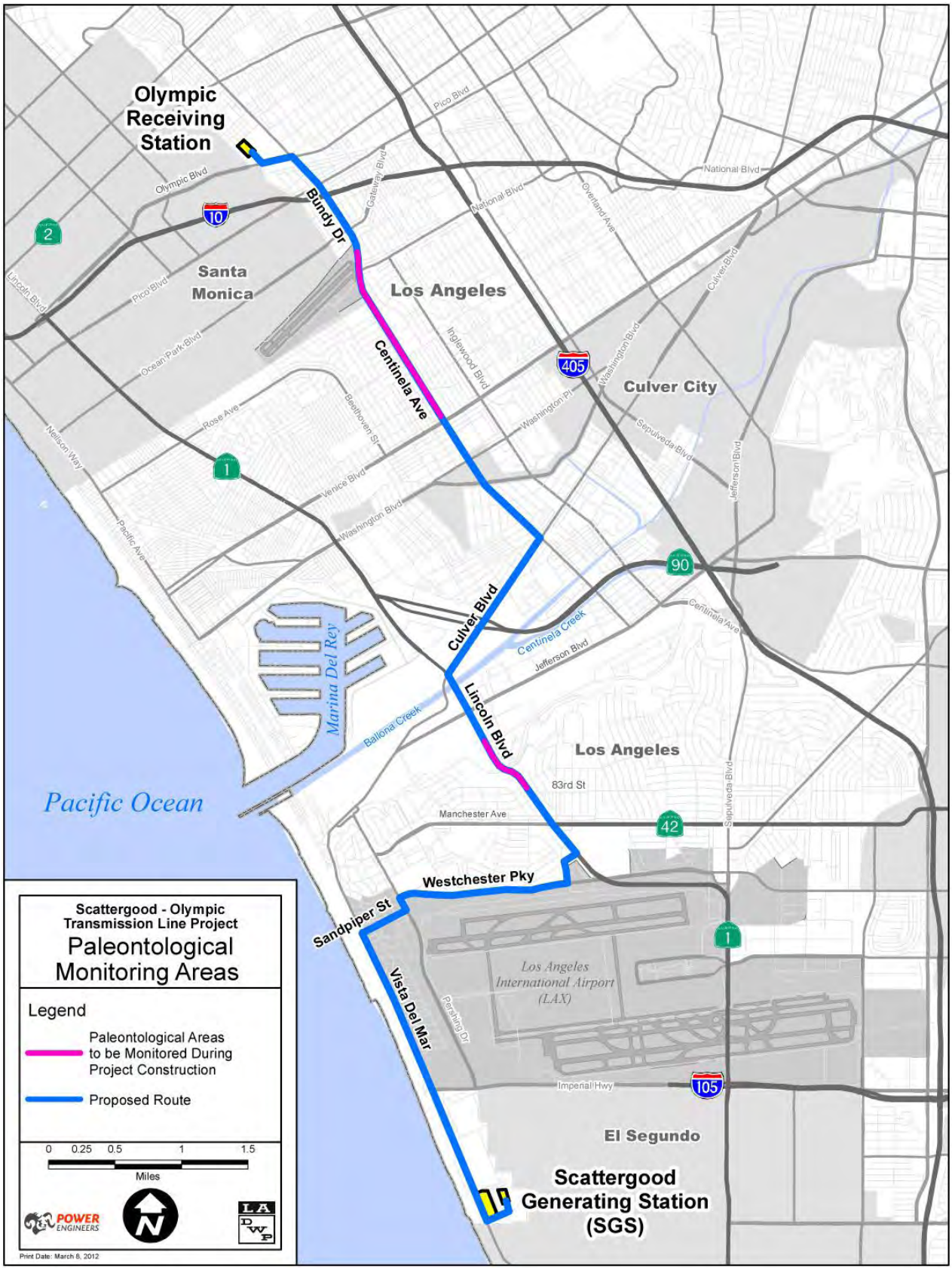
This unconsolidated, near-shore, marine sand was deposited between 1.8 million and 11,000 years ago (Dibblee 2007). Known for extremely well-preserved marine invertebrate fossils, the San Pedro Formation has also produced the remains of fish, birds, and mammals. Since the formation preserves sediments deposited just along the coast during the Pleistocene, it preserves a unique and very poorly represented portion of California‘s paleontological history. The San Pedro formation has produced dozens of fossilized species including harbor seal, dolphin, extinct duck, extinct booby, and six other bird species.

Quaternary Older Alluvial Fan (Qof/Qoa)

Deposited during the middle to late Pleistocene, between 781,000 to 11,000 years ago, these old alluvial fans were emplaced at the mouths of canyons in the Santa Monica Mountains (GeoWhen 2008, Yerkes and Campbell 2005). These sediments include slightly to moderately lithified silts, sands, and gravels with moderately to well-developed paleosols (Yerkes and Campbell 2005).

Eight recorded paleontological localities have been identified within the Quaternary alluvium near the Project area. The mammal species recovered at those locations include: extinct mammoth, extinct bison, extinct horse, extinct American lion, coyote, jackrabbit, brush rabbit, wood rat, kangaroo rat, and other rodent species. Other species found at these localities include: eared grebe, plover, duck, pond turtle, lizard, culubrid snake, toad, newt, and speckled sanddab. Over 50 different species of fishes including 10 species of sharks have been recorded from Quaternary Formations.

FIGURE 4.2.3-1. PALEONTOLOGICAL AREAS TO BE MONITORED DURING PROJECT CONSTRUCTION



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Thresholds Used to Determine Significance of Impact

A project is considered to have a significant effect on the environment if it causes a substantial adverse change in the significance of a historical resource. "Substantial adverse change" in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired or diminished. Furthermore, CEQA recommends that all cultural resources be preserved *in-situ* whenever possible through avoidance of the resource. Whenever a historical resource or unique archaeological resource cannot be avoided by project activities, effects shall be addressed and mitigated as outlined in CEQA.

Significance Threshold Criteria

For the Project, it is anticipated that potential impacts on historical and archaeological resources would be related to physical damage (e.g., ground disturbance at an archaeological site caused by pavement removal, trenching, and other construction-related surface activities).

The following significance thresholds are based on the environmental checklist presented in Appendix G of the CEQA Guidelines, and are used to describe the potential impacts of the proposed Project upon the sensitive cultural resources that may occur in the proposed Project area. A project would have a significant impact on cultural resources if it would:

Cultural Resources

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations Section 15064.5.
c) Disturb any human remains, including those interred outside of formal cemeteries.

Paleontological Resources

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

Cultural Resources

Environmental Impacts

The environmental checklist presented in Appendix G of the CEQA Guidelines provides a common set of questions to determine if the project could cause a significant impact to cultural resources.

Would the Project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Urban development along the coastal area of Los Angeles began prior to environmental protection requirements for cultural resources. This early construction is likely to have damaged cultural resources, but not necessarily destroyed all remaining evidence of features and artifacts. A number of historical resources have been recorded within the Ballona Creek and Wetlands area, some of which are known to contain human remains and associated grave goods. Although the area has been disturbed by development, such as commercial, residential, and associated infrastructure, the potential for intact archaeological resources and cultural material remains high.

The background research indicates that the Project would cross five previously recorded cultural resources. These resources are:

- CA-LAN-54, a prehistoric village site;
- CA-LAN-1118, a village site;
- CA-LAN-3803, remnants of the Southern Pacific Railroad;
- 19-176733, the Culver Boulevard Bridge over Lincoln Boulevard; and
- 19-173734, the Lincoln Boulevard Bridge over Ballona Creek.

Two of these resources (CA-LAN-54 and LAN-1118) are potentially eligible for the CRHR but have not yet been evaluated. For the purposes of this analysis, it is assumed that they qualify as historical resources based on the previous documentation. If, upon further evaluation, these resources are found to not meet the criteria for historical resources, they may still qualify as unique archaeological resources. CA-LAN-3803 has been recommended eligible for inclusion to the CRHR; however, because the site is covered by pavement, no surface evidence of this resource was noted during the reconnaissance survey. The remaining two resources (19-176733 and 19-176734) have been recommended not eligible for the NRHP by the California Department of Transportation Historic Bridge Survey (2010) but have not been evaluated for the CRHR. The Project would cross under the Culver Boulevard Bridge (19-176733); new conduits would be installed within the open areas underneath the Lincoln Boulevard Bridge and therefore, as proposed, the Project would have no impact on these two resources.

The proposed route is also close to other potential historical resources and of interest to Native Americans, as the NAHC has identified Sacred Lands in the vicinity. The resources recorded outside the Project but near the proposed route include CA-LAN-62 and CA-LAN-2676. Two historical-period archaeological resources, CA-LAN-1933H and -1934H, are also adjacent to the proposed Project. No surface evidence of the resources was identified during the reconnaissance survey because the entire corridor is paved; however, there is a possibility of intact subsurface cultural material associated with these resources beneath the pavement. During construction-related ground-disturbing activities, there is a potential for artifacts to be discovered.

Physical impacts to historical resources would be reduced to a less than significant level by implementing cultural resource Mitigation Measures CUL-1through CUL-3, listed below.

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

The known archaeological resources in the Project area appear to qualify as historical resources, as discussed above. Should any of them be determined not eligible to the CRHR and therefore not historical resources, they may still qualify as unique archaeological resources under CEQA. No surface evidence of the resources was identified during the reconnaissance survey because the entire corridor is paved; however, there is a possibility of intact subsurface cultural material associated with these resources beneath the pavement. During construction-related ground-disturbing activities, there is a potential for artifacts to be discovered.

As stated above, although the Project area is developed, some areas along the proposed Project route may yield currently undiscovered archaeological artifacts or resources. Ground disturbance caused by construction activities could also result in damage to or destruction of remnant archaeological resources. Physical impacts to unique archaeological resources would be reduced to a less than significant level by implementing cultural resource Mitigation Measures CUL-1through CUL-3, listed below.

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

Numerous archaeological resources have been identified in the Ballona Creek and Wetlands area, which are known to contain human remains and associated grave goods. The potential for intact archaeological sites with human remains is high in this area and in the sand dunes along the shoreline.

The archaeological site record for CA-LAN-54 states that human remains were noted at this site. In addition, two of the resources near the proposed alignment are prehistoric villages (CA-LAN-62 and -356) with human interments and associated artifacts. Also, CA-LAN-1081 is recorded on the Loyola Marymount University property overlooking Ballona Creek. These resources are currently located beneath pavement, possibly but not necessarily destroyed. Subsurface features and artifacts relating to these resources may still remain intact. Given the site density within the Ballona Creek area, other resources may exist beneath the pavement.

Physical impacts to potential Native American human remains would be reduced to a less-than-significant level by implementing cultural resource Mitigation Measures CUL-1through CUL-3, described below.

Mitigation Measures

The proposed underground transmission line would be in the proximity of historical resources and potential unique archaeological resources, including resources with human remains. Ground-disturbing construction activities (trenching) could have impacts on these resources, unless the resources have been previously disturbed or destroyed.

CUL-1: Construction would be monitored by a qualified archaeologist during trenching and other ground-disturbing activities when that disturbance occurs in native soil, and any native soil that is removed will be made accessible to the archaeological monitor. Should previously unrecorded cultural resources be discovered during construction, construction would halt until the on-site cultural resource monitor and Native American monitor have had the opportunity to investigate the resource and assess its significance.

The portions of the route that would be monitored for cultural resources when construction occurs within native soils are:

- Vista Del Mar from Imperial Highway to Sandpiper Street;
- Sandpiper Street;
- W. Westchester Parkway between Pershing Drive and Stanmoor Drive;
- Lincoln Boulevard between 83rd Street and Culver Boulevard; and
- Culver Boulevard between Lincoln Boulevard and Centinela Avenue

CUL-2: Native American monitors shall observe construction-related ground disturbance in native soil within the areas specified in CUL-1.

CUL-3: Before the initiation of ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface cultural resources and protection of all cultural resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural resources.

Significance of Impact After Mitigation

After implementation of Mitigation Measures CUL-1 through CUL-3, impacts would be less than significant.

Paleontological Resources

Environmental Impacts

Definition of Significance for Paleontological Resources

Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biota;
4. The fossils exhibit unusual or spectacular circumstances in the history of life;
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographical locations.

As defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important.

Pursuant to CEQA, a project is considered to have a significant effect on the environment if it would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. The following significance threshold is based on the CEQA environmental checklist presented in Appendix G of the CEQA Guidelines, and is used to determine the potential impacts of the proposed Project upon paleontological resources that may occur in the Project area.

Would the Project:

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

Excavation associated with the proposed Project in areas of high paleontological sensitivity, as described above and illustrated in Figure 4.2.3-1, may result in uncovering of paleontological resources. Potential impacts may be mitigated by employing sound engineering practices in the planning, design and excavation of the Project. More specifically, potential impacts can be reduced to a less-than-significant level through implementation of Mitigation Measures PR-1 through PR-5, summarized below.

Mitigation Measures

PR-1: Based on the location of highly sensitive underlying geologic formations, a qualified paleontologist shall be retained to design and implement a paleontological resource mitigation plan (PMTP). The qualified paleontologist shall attend relevant pre-construction meetings to consult with grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. The PMTP shall identify construction impact areas where high sensitivity paleontological resources may be encountered and the depths at which those resources are likely to occur. The PMTP shall outline a coordination strategy for monitoring, detail significance criteria used to determine data potential of resources, and describe methods of recovery, preparation, analysis, and final curation of specimens.

PR-2: A paleontological monitor shall be retained to monitor Project-related excavations in areas underlain by formations of high sensitivity for paleontological resources. The areas deemed to have potential for presence of paleontological resources that shall be monitored during construction-related excavation include (also refer to Figure 4.2.3-1):

- Lincoln Boulevard between Jefferson Boulevard and 83rd Street

- Centinela Avenue between Ocean Park Boulevard and Venice Boulevard

PR-3: Before the initiation of ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological resources.

PR-4: When fossils are discovered, the qualified paleontologist (or paleontological monitor) shall recover them. In the instance of an extended salvage period, the paleontologist shall work with the construction manager to temporarily direct, divert, or halt earthwork to allow recovery of fossil remains in a timely manner. Because the potential for the recovery of small fossil remains, such as isolated mammal teeth, as determined by a qualified paleontologist, it may be necessary to collect bulk samples (up to 6,000 pounds) of sedimentary rock matrix.

PR-5: Fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, and cataloged as part of the mitigation program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited in a federally accredited repository for both vertebrate and invertebrate fossils, such as the Natural History Museum of Los Angeles County or the Museum of Paleontology at the University of California, Berkeley. A final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

Significance of Impact After Mitigation

After implementation of Mitigation Measures PR-1 through PR-5, impacts would be less than significant.

Cumulative Impacts

Cultural Resources

The National Historic Preservation Act (NHPA) and CEQA Guidelines provide specific guidance on how cultural resources should be managed in regard to proposed projects in California. Therefore, it is assumed that all projects that could potentially affect cultural resources in the Project cumulative impact area would be required to have some level of cultural resource documentation, evaluation, impact assessment, and, if necessary, mitigation. Despite mitigation efforts, cumulative impacts to cultural resources could result from the loss of irreplaceable cultural resources from development of over 94 acres in the Project vicinity.

It is reasonable to assume that the overall density of cultural resources within these 94 acres would be comparable to the overall density of cultural resources in the Project area. As proposed, the Project would be 11.4 miles (4.5 acres). The acreage is approximately five percent of the present and foreseeable development of the 94 acres in the surrounding area. Therefore, construction of the Project would make only a small contribution to the cumulative quantitative loss of cultural resources in the Project vicinity. Any impact to cultural resources within the area would be mitigated.

Paleontological Resources

The geographic scope for paleontological resources cumulative impact analysis consists of 37 projects in Los Angeles County and the cities of Los Angeles, Culver City, Santa Monica, and El Segundo. These projects entail construction of retail, residential, and mixed use properties. Ground-disturbing activities associated with construction and maintenance of these other projects may have or could expose and damage paleontological resources. Depending on the horizontal extent and depth of ground disturbance, significant impacts on paleontological resources could occur.

Ground disturbance associated with the Project could also expose and damage paleontological resources. However, there are no areas of moderate sensitivity for paleontological resources, and areas of high sensitivity make up only a very small percentage of the overall Project area; there has also been extensive development in the Project area and region. Therefore, implementation of Mitigation Measures listed above (PR-1 through PR-5) would reduce potential cumulative impacts of the Project to less than significant.

4.2.4 GEOLOGY AND SOILS

Regulatory Framework

The Project must comply with applicable State and local laws. The following is a discussion of those relevant to the assessment of geology and soils.

State

Geology and Seismicity

Primary State guidance relating to principal seismic hazards evaluated in this EIR is contained in the 1990 Seismic Hazards Mapping Act and 1994 Alquist-Priolo Earthquake Fault Zoning Act (originally enacted in 1972). The Seismic Hazards Mapping Act focuses on potential seismic hazards related to strong ground shaking, liquefaction, and seismically induced landslides. Under provisions in the act, the State is charged with designating and mapping areas at risk for these seismic hazards, and the maps and associated reports are to be used by cities and counties in preparing their general plans and adopting land use policies to reduce and mitigate potential hazards to public safety.

Under the Alquist-Priolo Earthquake Fault Zoning Act, the State is charged with delineating "Earthquake Fault Zones" (formerly known as Alquist-Priolo Special Studies Zones) along known active, well-defined faults in California. Cities and counties affected by the zones must regulate certain development projects for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting.

The California Building Code (CBC 2007) is based on the 1997 Uniform Building Code, with the addition of more extensive structural seismic provisions. Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures.

Soils

In California, stormwater NPDES permits on non-Tribal and non-federal land are overseen by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). A SWPPP must include a site description, including a map that identifies sources of stormwater discharges on the site, anticipated drainage patterns after major grading, areas where major structural and nonstructural measures will be employed, surface waters, including wetlands, and locations of discharge points to surface waters. The SWPPP also describes Best Management Practices (BMPs) that will be employed to control stormwater runoff and erosion and sedimentation, including protection of existing vegetation wherever possible and stabilization of disturbed areas.

Local

Los Angeles County

Elements of the Los Angeles County General Plan contain policies for the avoidance of geologic hazards and/or the protection of unique geologic features.

The Safety Element of the Los Angeles County General Plan (1990) provides goals and policies to reduce impacts from seismic and geologic hazards and provide a safer environment. The two main policies relevant to the Project are: 1) minimize injury and loss of life, damage, and social, cultural, and economic

impacts caused by earthquake hazards; and 2) protect public safety and minimize the social and economic impacts from geologic hazards. Proper design of the Project facilities, including all mitigation measures outlined in this document, would meet these goals and would be consistent with the Safety Element.

City of Los Angeles

The Safety Element of the City of Los Angeles General Plan (1996) ensures compliance with applicable State and federal planning and development regulations, including the Alquist-Priolo Earthquake Fault Zoning Act.

The City of Los Angeles Brown Book for Public Works Construction (City of Los Angeles 2009) Section S-601 contains seismic design standards.

City of Culver City

The Seismic Safety Element of the City of Culver City General Plan (1974) recommends geologic investigations in hillside areas and along the Inglewood, Overland, and Charnock Faults, and soils investigations for all developments within the City.

Environmental Setting

The information provided in this section has been derived from the *Preliminary Geotechnical Evaluation for Scattergood – Olympic Line 1 Transmission Line* prepared by Ninyo & Moore (2009).

The proposed Scattergood-Olympic Transmission Line would be situated on the coastal plain of the Los Angeles Basin within varying geologic environments that include an elevated coastal terrace in Playa del Rey; wetland areas in Playa Vista; and an alluvial floodplain with elevated marine terraces in West Los Angeles. Gentle to moderately steep topographic gradients exist in certain portions of the Project, including portions of Playa del Rey and Mar Vista. Elevations along the Project alignment vary from approximately four feet above mean sea level (MSL) near Ballona Creek in Playa Vista to an approximate elevation of 155 MSL near the Olympic RS.

Geology

Regional Geology

The proposed transmission line alignment is located within the Peninsular Ranges Geomorphic Province of Southern California. This geomorphic province encompasses an area that extends approximately 125 miles from the Transverse Ranges and the Los Angeles Basin south to the Mexican border, and beyond another approximately 775 miles to the tip of Baja California. The Peninsular Ranges province varies in width from approximately 30 to 100 miles and is characterized by northwest-trending mountain range blocks separated by similarly northwest-trending faults (Norris and Webb 1990).

The predominant rock type that underlies the Peninsular Ranges province is a Cretaceous-age igneous rock (granitic rock) referred to as the Southern California batholith. Older Jurassic-age metavolcanic and metasedimentary rocks and older Paleozoic limestone, altered schist, and gneiss are present within the province. Cretaceous-age marine sedimentary rocks and younger Tertiary-age rocks comprising volcanic, marine, and non-marine sediments overlie the older rocks (Norris and Webb 1990). More recent Quaternary sediments, primarily of alluvial origin, are found in the low-lying valley and drainage areas within the region, including the Los Angeles basin where the Project would be located.

Active northwest-trending fault zones in the Peninsular Ranges province include the Newport-Inglewood fault zone, Elsinore fault zone (Whittier fault), and San Jacinto fault zone. The northern boundary of the Province is formed by the Transverse Ranges Southern Boundary fault system, which includes the active Malibu, Santa Monica, Hollywood, and Raymond faults (Dolan *et. al*. 2000a). The active San Andreas

fault zone is located northeast of the province within the adjacent Colorado Desert Geomorphic Province. The predominant major tectonic activity associated with these and other faults within this regional tectonic framework is right-lateral, strike-slip movement (Norris and Webb 1990).

Site Geology

Geologic mapping of the Project area indicates that the proposed alignment is underlain by Quaternary-age sediments. Detailed mapping indicates that geologic units underlying the proposed alignment include the following: older and younger eolian (wind-blown) deposits on the elevated coastal terrace of the El Segundo and Playa del Rey areas; alluvial deposits (older and younger) in the low-lying Ballona Creek drainage area in Playa Vista and Mar Vista; and older marine terrace deposits and younger alluvium in the Mar Vista and West Los Angeles areas.

The older eolian and alluvial deposits typically consist of dense to very dense sand and silty sand (California Division of Mines and Geology [CDMG] 1998c), and younger eolian deposits consist of fine sand (CDMG 1998b). These younger eolian deposits are typically poorly consolidated. The younger alluvium typically consists of soft clay, silt, and loose to moderately dense sand (CDMG 1998c). The older marine terrace deposits typically consist of medium dense to dense fine sand, silty sand, silt, and clay with some gravel (CDMG 1998b). Fill soils are expected to be present along the Project alignment, generally related to previous development, utilities, and roadway construction.

Some moderately steep slopes are present on the coastal bluffs along Vista Del Mar and Lincoln Boulevard adjacent to the proposed alignment. No active landslides are mapped along the alignment, and no landslides were observed during site reconnaissance, nor was the presence of faulting or surface rupture observed along the proposed alignment.

Groundwater

Based on review of the State of California Seismic Hazard Evaluation reports, the historic high groundwater level along the proposed alignment is reported to range from a depth of approximately 5 feet to 40 feet below the ground surface (CDMG 1998b and 1998c). Groundwater is anticipated to be shallow (on the order of five feet deep or shallower) along low-lying portions of the proposed alignment located in the Playa Vista and Mar Vista areas. Fluctuations in the level of groundwater may occur due to variations in ground surface topography, groundwater pumping, tidal fluctuations, subsurface stratification, rainfall, irrigation practices, and other factors. Shallow perched conditions may also be present.

Faulting and Seismicity

The Scattergood-Olympic transmission line alignment is located in a seismically active area, as is the majority of Southern California. The numerous faults in Southern California include active, potentially active, and inactive faults. As defined by the California Geological Survey (CGS), active faults are faults that have ruptured within Holocene time, or within approximately the last 11,000 years. Potentially active faults are those that show evidence of movement during Quaternary time (within the last 1.6 million years), but for which evidence of Holocene movement has not been established. Inactive faults have not moved in the last approximately 1.6 million years.

Based on background review and site reconnaissance, the ground surface in the vicinity of the proposed alignment is not transected by known active or potentially active faults. Portions of the proposed alignment are located within a State of California Seismic Hazard Zone designated as an area where historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements (CDMG 1999). The alignment is not located within an Earthquake Fault Zone (Alquist-Priolo Special Studies Zone, Hart and Bryant 1997). However, the potential for strong ground motion is considered high.

The potentially active Santa Monica fault zone is located approximately 0.7 mile north of the Olympic RS. The active Palos Verdes fault zone is located approximately 3.7 miles southwest of the SGS. The active Newport-Inglewood fault zone is located approximately three to four miles east of the proposed transmission line alignment. Known active faults within approximately 20 miles of the proposed alignment include the Santa Monica, Palos Verdes, Newport-Inglewood, Malibu Coast, Hollywood, Northridge, Puente Hills Blind Thrust, Upper Elysian Park Blind Thrust, Verdugo, Raymond, and Sierra Madre Faults. Based on the proximity and number of known active and potentially active faults within the general region, it is reasonable to expect a strong ground motion seismic event during the lifetime of structures for the proposed Project. In general, potential hazards associated with seismic activity include strong ground motion, ground surface rupture, seismically induced liquefaction, and landslides.

Thresholds Used to Determine Significance of Impact

The following significance thresholds are based on the environmental checklist presented in Appendix G of the CEQA Guidelines, and are used to describe the potential impacts of the proposed Project upon the geology and soils in the proposed Project area. A project would have a significant impact on geology and soils if it would:

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.
   ii) Strong seismic ground shaking.
   iii) Seismic-related ground failure, including liquefaction.
   iv) Landslides.

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

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.

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

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

Environmental Impacts

A project is considered to have an impact if its implementation would result in or expose people and/or structures to potential substantial adverse effects, including risk of loss, injury, or death involving hazards encompassing one or more of the geologic conditions presented in Appendix G of the CEQA Guidelines. These potential impacts are discussed below.

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?

Surface fault rupture is the offset or rupturing of the ground surface by relative displacement across a fault during an earthquake. The Project alignment is not located within a State of California Earthquake Fault Zone (formerly known as Alquist-Priolo Special Studies Zones). Based on current published fault studies and geologic maps, the proposed Project site is not mapped as underlain by a known active fault,

although lurching or cracking of the ground surface as a result of nearby seismic events is possible. However, the potential for impacts related to surface fault rupture is considered to be less than significant, and no mitigation is required.

ii) Strong seismic ground shaking?

The seismic hazard likely to impact the Project site is ground shaking during an earthquake on one of the nearby or distant active faults. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The size and type of construction also affects how particular structures perform during ground shaking.

The potential impacts due to ground shaking would be evaluated prior to design and construction of Project improvements and incorporated into the design. With implementation of standard practices for engineering design and construction of facilities such as the proposed Project, potential impacts due to ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Liquefaction is a phenomenon in which soil loses its shear strength for short periods of time during an earthquake. Ground shaking of sufficient duration results in the loss of grain-to-grain contact, due to a rapid increase in pore water pressure, causing the soil to behave as a fluid for short periods of time. The effects of liquefaction may include excessive total and/or differential settlement of structures founded on the liquefying soils. To be susceptible to liquefaction, a soil is typically cohesionless, with a grain-size distribution of a specified range (generally sand and silt), loose to medium density, below the groundwater table, and subjected to a sufficient magnitude and duration of ground shaking.

Two areas of the Project would be within areas considered susceptible to liquefaction. In the northern portion of the Project, the Olympic RS is located in an area that may experience liquefaction during a seismic event. The southern section of the transmission line alignment, from Washington Boulevard to the Ballona Escarpment (Westchester Bluffs), is also within a mapped liquefaction hazard area. However, appropriate engineering design and construction measures would be incorporated into the Project‘s design to account for any areas susceptible to liquefaction, such that significant impacts in this regard are avoided.

iv) Landslides?

Landslides, slope failures, and mudflows of earth materials predominantly occur where slopes are too steep and/or the earth materials too weak to support themselves. Landslides may also occur by seismic ground shaking.

Landslides were not observed along the proposed alignment, and are not mapped along the alignment. However, according to Seismic Hazards Zones Maps published by the State of California (CDMG 1999a and 1999b), the proposed transmission line would be located adjacent to coastal bluff areas along Vista Del Mar and Lincoln Boulevard where the potential for earthquake-induced landslide movement exists. Assessment of the potential for landslides and earthquake-induced landslides would be evaluated prior to design and construction of Project improvements and incorporated into the Project design. The proposed Project would not result in, or expose people to, significant impacts related to on- or off-site landslides or mudflows; thus, potential impacts due to landslides would be less than significant and no mitigation is required.

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

Erosion can occur by many different processes and may occur at the Project site where bare soil is exposed to moving water or wind. Construction activities related to the Project alignment may result in ground surface disruption during excavation of trenches, which would create the potential for erosion to occur. However, the erosion potential when the transmission line improvements are developed would be relatively minor due to the anticipated covering of construction areas with structures or pavement. Erosion control BMPs would minimize the potential for erosion resulting from wind or stormwater, and potential impacts would be less than significant.

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?

Subsidence is typically associated with areas of groundwater withdrawal or other fluid withdrawal from the ground, such as oil and natural gas, and could cause damage to foundations, structures, pavements, and other hardscape features. There are no recent recorded incidences of subsidence in the Project area.

Loose, sandy soils may be encountered along the proposed alignment during construction excavations. Excavations for proposed Project improvements adjacent to existing streets, sidewalks, or structures would need to be performed with care to reduce the potential for differential movement of existing improvements located near the excavations. Additionally, loose natural soils or undocumented/poorly compacted fill may be present in some areas along the alignment. Compressible natural soils and poorly compacted fills pose the risk of adverse settlement under static loads imposed by new fills or structures. Differential settlement of soils can cause damage to Project improvements. However, appropriate engineering and construction measures would be incorporated into the Project‘s design to account for any areas prone to settlement, such that significant impacts in this regard are avoided.

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

Expansive soils generally result from specific clay minerals that have the capacity to shrink or swell in response to changes in moisture content. The ability of clayey soil to change volume can result in uplift or cracking to foundation elements or other rigid structures, such as sidewalks or slabs, founded on these soils. Expansive soils may be present in geologic units that underlie the Project site. Assessment of the potential for expansive soils would be evaluated during the design phase of the Project. Appropriate engineering design and construction measures would be incorporated into the Project‘s design to account for these conditions such that significant impacts in this regard are avoided.

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

The Project would not involve the use of septic tanks or waste water disposal systems; therefore, no impact would occur.

Mitigation Measures

The proposed Project would incorporate appropriate engineering and construction measures to avoid significant geological and soils related impacts; therefore, no mitigation is required.

Significance of Impact After Mitigation

Impacts would be less than significant without mitigation.

Cumulative Impacts

The geographic scope for the cumulative analysis consists of 37 projects in Los Angeles County and the cities of Los Angeles, Culver City, Santa Monica, and El Segundo. These projects entail construction of retail, residential, and mixed-use properties. Ground-disturbing activities associated with construction and maintenance of these other projects would not increase the potential for geologic hazards with proper design. Cumulative impacts are anticipated to be less than significant.

4.2.5 HAZARDS, HEALTH, AND SAFETY

Regulatory Framework

Federal

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) oversees and enforces regulations associated with the handling of hazardous materials in the work environment. The regulations established in the Code of Federal Regulations (CFR) Title 29 are designed to protect workers from hazards at the work site. By regulation, relevant training, operating procedures, and protective equipment are required to be used at work sites where hazardous materials may be present.

Resource Conservation and Recovery Act

Individual states may employ their own hazardous waste programs in lieu of the Resource Conservation and Recovery Act (RCRA) as long as the state program is at least as stringent as the federal RCRA requirements; it also must be approved by the Environmental Protection Agency (EPA). California's RCRA program, known as the Hazardous Waste Control Law (HWCL), was approved by the EPA in 1992.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) was created to protect water, air, and land resources from historical chemical disposal practices. Also known as the Superfund Act, the sites listed under it are known as Superfund sites. As per CERCLA, the EPA manages a list, called the CERCLIS, of all contaminated sites in the nation that have undergone or are currently undergoing clean-up activities. The CERCLIS details current and potential hazardous waste sites, as well as ongoing remedial activities. Sites on the National Priorities List (NPL), or being considered for the NPL, are included.

State

California Code of Regulations

The California Code of Regulations (CCR), Title 22, Section 66261.20-24, contains technical descriptions of characteristics that would classify waste material, including soil, as hazardous waste. When excavated, soils and concentrations of contaminants higher than certain acceptable levels must be handled and disposed of as hazardous waste.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials on site prepare a business plan and submit it to local health and fire departments. The business plan must include details of the facility and business conducted at the site, an inventory of hazardous materials that are handled and stored onsite, an emergency response plan, and a safety and emergency response training program for new employees, with an annual refresher course.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal OSHA) regulates worker safety in the state of California similar to the federal OSHA.

Department of Toxic Substance Control

The Department of Toxic Substance Control (DTSC) is responsible for regulating the use, storage, transport, and disposal of hazardous substances in the State. The DTSC maintains a Hazardous Waste and Substances Site List for site cleanup. This list is commonly referred to as the Cortese list. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Hazardous Materials Emergency Response

As per the Emergency Service Act, California has developed an Emergency Response Plan to coordinate emergency services provided by federal, State, and local governmental agencies and private individuals. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the EPA, California Highway Patrol (CHP), California Department of Fish and Game (CDFG), the Regional Water Quality Control Boards (RWQCBs), the local air districts, and other local agencies.

Pursuant to the Business Plan Law, local agencies are required to develop —area plans" for the response to releases of hazardous materials and wastes. These emergency response plans depend to a large extent on the Business Plans submitted by businesses that handle hazardous materials. An area plan must include pre-emergency planning and procedures for emergency response, notification, and coordination of affected government agencies and responsible parties, training, and follow up.

Hazardous Materials Transportation

The State of California has adopted U.S. Department of Transportation (USDOT) regulations for the intrastate movement of hazardous materials; State regulations are contained in 26 CCR. In addition, the State of California regulates the transportation of hazardous waste originating in the state and passing through the state (26 CCR). Both regulatory programs apply in California.

The two State agencies with primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the CHP and the California Department of Transportation (Caltrans). The CHP enforces hazardous materials and hazardous waste labeling and packing regulations to prevent leakage and spills of material in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are the responsibility of the CHP, which conducts regular inspection of licensed transporters to ensure regulatory compliance. Caltrans has emergency chemical spill identification teams at locations throughout the State that can respond quickly in the event of a spill.

Hazardous Waste Management and Handling

In California, the California Environmental Protection Agency (Cal EPA) and DTSC, a department within Cal EPA, regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. DTSC has primary hazardous material regulatory responsibility, but can delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL.

The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe the management of hazardous wastes; establish permit requirements for hazardous

waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in ordinary landfills. Hazardous waste manifests must be retained by the generator for a minimum of three years. Hazardous waste manifests provide a description of the waste, its intended destination, and regulatory information about the waste. A copy of each manifest must be filed with the State. The generator must match copies of hazardous waste manifests with receipts from treatment, storage, and disposal facilities.

Contaminated soils and other hazardous materials removed from a site during construction or remediation may need to be handled as hazardous wastes.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the RWQCBs administer the requirements of the Clean Water Act that regulate pollutant discharges into waterways of the U.S. The Los Angeles RWQCB enforces site cleanup regulations for illicit discharges that have resulted in contamination of groundwater in the Project area.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

In January 1996, Cal EPA adopted regulations that implemented a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has six elements, including: (1) hazardous waste generators and hazardous waste onsite treatment; (2) underground storage tanks; (3) aboveground storage tanks; (4) hazardous materials release response plans and inventories; (5) risk management and prevention programs; and (6) Unified Fire Code hazardous materials management plans and inventories. The plan is implemented at the local level, and the agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA).

Local

Certified Unified Program Agency

The CUPA, created by the DTSC, implements the United Program regulating underground tanks, hazardous materials, and any unauthorized release of hazardous material. The CUPA responsible for administering hazardous material programs in the City of Los Angeles is the Los Angeles Fire Department (LAFD). The Health and Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department is a participating agency and regulates hazardous waste in the City of Los Angeles.

City of Los Angeles General Plan

The City of Los Angeles General Plan Policy #9.3.1 requires the reduction of the amount of hazardous substances and the total amount of flow entering the wastewater system. Within the General Plan are specific Community Plans. The LAX Community Plan (2005), Section 3.8 Policy 1, requires implementation of a program for handling of contaminated materials encountered during construction.

Environmental Setting

The proposed transmission line route traverses land that is and has been utilized for a variety of uses, including open-space recreation and preserve, and residential, commercial, and industrial activities. Existing and past land use activities are used as potential indicators of hazardous material storage and use. For example, many industrial sites, historic and current, are known to have soil or groundwater contamination by hazardous substances. Other hazardous materials sources include leaking underground tanks in commercial and industrial areas, surface runoff from contaminated sites, and migration of contaminated groundwater plumes.

Contamination and Hazardous Materials

The principle environmental impacts involving hazardous waste are the excavation and handling of contaminated soil and groundwater resulting in exposure to workers and the general public. A wide variety of contaminants, including petroleum hydrocarbons, solvents, polynuclear aromatic compounds (PNAs), heavy metals, and herbicides may be present along the proposed transmission line route. Contaminant types, concentrations, and locations cannot be accurately predicted without site-specific information. Contaminated soil in the construction area may require special handling as hazardous waste and would be transported according to State and federal regulations.

Similar issues pertain to contaminated groundwater, which may have transported contamination from nearby sources to the proposed Project alignment. Shallow groundwater and locally contaminated groundwater may be encountered at excavation depths in areas of the proposed route near water bodies. For discussion regarding groundwater, please refer to Section 4.2.11, Water Resources.

Methane gas is extremely flammable, and in high concentrations can result in dangerous combustion or explosion. Construction activities for the proposed Project could potentially encounter methane gas. Portions of the proposed alignment in the Playa del Rey, Playa Vista, and El Segundo areas are located in a City of Los Angeles methane zone and City of Los Angeles methane buffer zone (City of Los Angeles 2004). SGS is located in a methane zone.

Subsurface migration of mobile contaminants within groundwater may provide a conduit to the Project area. Shallow groundwater would likely be encountered near water bodies such as Ballona Creek. In areas where the water table is below planned excavation depths, contaminated groundwater would not be expected to impact construction.

In addition to the specific sites identified in the environmental databases, it is possible that other sites could be discovered during construction of the Project. Off-site migration of contamination, unauthorized dumping, or historic, unreported hazardous materials spills may adversely impact the soil throughout much of the industrial land use areas.

Substructure Hazards

Existing substructure utilities are located along the proposed alignment, which could create a potential hazard with the trenching activities associated with the construction of an underground transmission line. One natural gas transmission pipeline is anticipated to be crossed by the proposed route on Jefferson Boulevard. In addition, it is anticipated that the proposed route would cross 25 natural gas distribution pipelines and three oil pipelines. Finally, it is estimated that the proposed route would parallel existing natural gas transmission and distribution pipelines and oil pipelines for a distance of 0.2, 5.0, and 0.9 linear miles, respectively.

Thresholds Used to Determine Significance of Impacts

The following significance thresholds are based on the environmental checklist presented in Appendix G of the CEQA Guidelines, and are used to determine the potential impacts of the proposed Project from hazards and hazardous waste that may occur in the proposed Project area. A project would have a significant impact from hazards and hazardous waste if it would result in one or more of the following:

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
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.
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

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

Environmental Impacts

Potential impacts during construction and operation activities associated with the proposed Project are addressed below.

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

The proposed Project would not have a significant impact to public health or the environment through the routine transport, use, or disposal of hazardous materials. The operation of the proposed Project would not include the transport, storage, use, or disposal of hazardous materials. The construction of the proposed Project, which would be short-term in nature, could include the limited transport, storage, use, or disposal of hazardous materials, such as fuels, lubricating fluids, solvents, and bonding adhesives. These materials are not acutely hazardous; the storage, handling, and disposal of these materials are regulated by local, county, and State laws. The regulations set forth for such materials would be strictly followed, and thus the potential for hazardous materials impacts would be less than significant.

b) Would the project 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?

Construction activities would include the limited use of hazardous materials; operation activities would not include the use of any hazardous materials. As portions of the proposed Project would be located in City of Los Angeles Methane Zones and Methane Buffer Zones, methane gas in the soil could be encountered during construction. As it relates to construction of the proposed Project, methane gas could potentially be an issue within confined spaces such as maintenance vaults. Prior to entry of small confined spaces during Project construction and operations, the air quality would be tested to ensure that hazardous and flammable gases and vapors are not present pursuant to applicable requirements set forth in 29 CFR Part 1926. The potential for methane gas impacts would be less than significant.

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

There are thirteen schools located within 0.25 mile of the proposed Project alignment:

- Saint Bernard High School
- Loyola Village Elementary School
- Marina del Rey Junior High School
- Marina Del Rey Middle School
- Braddock Drive Elementary School

- Saint Gerald Majella School
- Betsy Ross School
- Grand View Boulevard Elementary School
- Ocean Charter School
- James J. McBride School
- Pacifica Montessori School
- Otis College of Arts and Design
- Loyola Marymount University

There are five schools that would be located adjacent to the proposed alignment. The James J. McBride and Pacifica Montessori Schools are located on Centinela Avenue. Ocean Charter School is located on Culver Boulevard. Otis College of Arts and Design and Loyola Marymount University are located on Lincoln Boulevard. The proposed Project would not emit hazardous emissions or result in the handling of hazardous or acutely hazardous materials and, therefore, would not result in a significant impact to nearby schools.

d) Would the project 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?

The proposed Project area contains six hazardous material sites listed on the Department of Toxic Substances Control (DTSC) Envirostor database (see Table 4.2.5-1 for a list of sites). The sites listed include leaking underground fuel tanks and Spills Leaks Investigations and Cleanup Sites (DTSC 2011). Soils surrounding these sites may contain hazardous materials that could become exposed during trenching and excavation activities. There are 10 monitoring wells, found using California State Water Resources Control Board's GeoTracker, that are within approximately 50 feet of the proposed Project alignment (see Table 4.2.5-2 for a list of wells and Figure 4.2.5-1 for a map of the well locations). These wells would not be impacted by the Project. Due to its recorded depth, groundwater is not expected to be encountered. Any contaminated water or soil encountered during construction activities during the course of construction would be removed and properly disposed of in accordance with pertinent local, State, and federal requirements.

TABLE 4.2.5-1. HAZARDOUS MATERIAL SITES IN PROJECT VICINITY

Envirostor ID	Site	Address	Type	Cleanup Status	Status Date	Site Code
City of Santa Monica						
19820113	Proposed Herb Alpert Educational Village	3131 Olympic Blvd.	School Cleanup	Active	1/25/2011	304449
71002172	Marconi Astronics, Inc.	3400 Airport Ave.	Tiered Permit	Refer: Other Agency	n/a	n/a
City of Los Angeles						
60001101	12210 1/ 2 Nebraska Ave. Property	12210 1/ 2 Nebraska Ave.	Voluntary Cleanup	Refer: RWQCB	5/27/2010	301413
19340669	Stoner Avenue Site	2131 Stoner Ave.	Voluntary Cleanup	No Further Action	4/26/2007	300322
60000437	Barry Ave. Plating Company	2210 Barry Ave.	Voluntary Cleanup	Active	8/31/2006	301299
60000645	Central Region Elementary School #22 (Playa Vista)	13150 West Bluff Creek Dr.	School Cleanup	Active	6/7/2007	304564

TABLE 4.2.5-2. MONITORING WELLS WITHIN APPROXIMATELY 50 FEET OF THE PROPOSED PROJECT ALIGNMENT

Site	ID	Address	Description	Cleanup Status	Field Points (Wells)	Minimum Depth to Groundwater (feet)
Chevron #9-0545 (Former)	T0603701207	12403 Venice Blvd. Los Angeles, CA 90066	LUST Cleanup Site	Open-Remediation RB Case #: 900660098	EW01 EW02 EW06 EW09 MW02 MW03 MW04 MW08 B17	N/A N/A N/A N/A 50.75 49.42 50.56 50.36 N/A
Westside Medical Park	SL2046M1652	12333 West Olympic Blvd. Los Angeles, CA 90064	Cleanup Program Site	Open- Site Assessment RB Case #0850A	MW05	28.99

Source: Geotracker 2011

FIGURE 4.2.5-1. ACTIVE MONITORING WELLS WITHIN APPROXIMATELY 50 FEET OF THE PROPOSED PROJECT ALIGNMENT

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e) For a project located within an airport land use plan, or which 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?

The proposed Project is located within the Airport Influence Areas of the Los Angeles International Airport and Santa Monica Airport (Los Angeles County Airport Land Use Plan 1991). The transmission line would be placed within existing public roadway rights-of-way and would not create an obstruction to the flight paths. Operation of the proposed Project would not require above-ground activities, except for emergency or periodic maintenance. Thus, the proposed Project would not result in a safety hazard for people residing or working in the Project area; therefore, there would be no impact.

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?

The proposed Project would not be located in the vicinity of a private airstrip. Therefore, there would be no impact.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

During construction of the proposed Project, through street-traffic would be preserved during construction. Emergency access requirements along the proposed Project alignment would be upheld. Any emergency or periodic maintenance for the proposed Project would also preserve street through-traffic. Impacts would be less than significant.

h) Would the project 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?

The proposed Project would not 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. The proposed Project would not be located within a wildfire hazard zone. No dense areas of flammable brush, grass, or trees (excluding Ballona Freshwater Marsh off of Lincoln Boulevard, though material may not be highly flammable) are located within the vicinity of the proposed Project. Therefore, no impacts would occur.

Substructure Hazards

One natural gas transmission pipeline is anticipated to be crossed along Jefferson Boulevard. Twenty-five natural gas distribution pipelines and three oil pipelines would also be crossed. The proposed route would also parallel an existing gas transmission pipeline for 0.2 mile, distribution pipelines for 5.0 miles and oil pipelines for 0.9 mile. Prior to excavations and trenching, the Underground Service Alert would be consulted to locate and mark existing underground structures. In addition, diagonal potholing at the maintenance vault locations would occur to prevent conflicts with existing substructures. This would prevent accidental dig-ins and potential utility service interruptions to existing transmission lines and substructures.

To avoid potential issues with heat-generating substructures that are crossed at right angles, the conduit bank would be constructed with a minimum two- to five-foot radial clearance, depending on the amount of heat generated, from the duct bank. For circuits and any paralleling substructures that would operate above normal ambient earth temperatures, a 16-foot minimum radial clearance would be would be preferable. Examples of heat-radiating facilities include underground transmission line circuits, primary distribution cables (especially multiple-circuit duct banks), steam lines, and heated oil lines.

Mitigation Measures

No mitigation required.

Significance of Impact after Mitigation

Impacts would be less than significant, and no mitigation would be required.

Cumulative Impacts

As there would be no significant hazards and hazardous materials impacts in the vicinity of the proposed Project, cumulative impacts to hazards and hazardous materials would not result.

4.2.6 NOISE

Sound is a mechanical energy that is transmitted by pressure waves through a compressible medium such as air. Noise can be defined as unwanted sound. Human response to noise is most commonly expressed as an annoyance; the level of annoyance may be affected by the amplitude (intensity or energy content) of the noise, its frequency (pitch), its duration of exposure, and/or its recurrence. Environmental noise is measured in decibels (dB). The A-weighted decibel scale (dBA) is used to approximate the range of sensitivity of the human ear to sounds of different frequencies. A noise level is a measure of noise at a given instance in time. A change in level of at least 5 dBA is noticeable to most people, and a 10-dBA increase is judged by most people as a doubling of the sound level. Typical noise levels from everyday sources are listed in Table 4.2.6-1.

TABLE 4.2.6-1. TYPICAL NOISE LEVELS FROM EVERYDAY SOURCES

SOURCE	TYPICAL SOUND LEVELS (dBA)
Loud automobile horn or siren	110-120
Using a saw, speakers at a concert	110
Inside motor bus, heavy traffic	80-90
Average to loud traffic on street corner	70-80
Conversational speech or lawnmower 30 feet away	60-70
Typical business office or vacuum 30 feet away	50-60
Living room, suburban area (general background noise)	40-50
Library or other quiet room	30-40

Community noise is primarily the product of many distant noise sources, which change gradually throughout a typical day. To account for the fluctuation in noise levels over time, noise impacts are commonly evaluated using time-averaged noise levels. The Community Noise Equivalent Level (CNEL) represents an energy average of the A-weighted noise levels over a 24-hour period, with 5 dBA and 10 dBA increases added for nighttime noise between the hours of 7:00 p.m. and 10:00 p.m. and 10:00 p.m. and 7:00 a.m., respectively.

Sound level naturally decreases as one moves farther away from the source. The ground surface (reflective or absorptive) is also a factor in the sound levels. Point sources of noise, such as stationary equipment or on-site construction equipment, attenuate (lessen) at a rate of 6.0 dBA per doubling of distance from the source when in an area with a reflective ground surface (e.g., parking lots). In areas where the ground is absorptive (e.g., soft dirt, grass, or scattered bushes and trees), noise attenuation from a point source is 7.5 dBA for each doubling of distance due to ground absorption (Caltrans 1998).

Regulatory Framework

City of Los Angeles

The City of Los Angeles General Plan Noise Element establishes standards for exterior sound levels based on land use categories. The Noise Element states that the maximum acceptable outdoor noise exposure level for residential, hospital, and school zones is 65 dBA CNEL, and that silencers and mufflers on intake and exhaust openings for all construction equipment are required (City of Los Angeles 1999).

Chapter IV, Article 1, Section 41.40 of the Los Angeles Municipal Code specifies hours allowed for construction activities (City of Los Angeles 2009). Construction or other noise-generating activity shall not disturb the occupied sleeping quarters of any dwelling, hotel, apartment, or other place of residence between 9:00 p.m. and 7:00 a.m., nor may such activity occur on or within 500 feet of residential property between 6:00 p.m. and 8:00 a.m. on Saturday or a federal holiday, nor at any time on Sunday.

Chapter XI, Article 2, Section 112.05 of the Los Angeles 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 at a distance of 50 feet from construction and industrial machinery shall be prohibited. However, the above noise limitation shall not apply where compliance is technically infeasible. The code states, ―technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of the equipment" (City of Los Angeles 2009).

Culver City

Title IX, Chapter 9.07.035 of the Culver City Municipal Code specifies hours allowed for construction activities (City of Culver City 2009). Construction activity shall be prohibited except between the hours of 8:00 a.m. and 8:00 p.m. Monday through Friday, 9:00 a.m. and 7:00 p.m. on Saturdays, and 10:00 a.m. and 7:00 p.m. on Sundays.

Los Angeles County

The Los Angeles County Noise Control Ordinance, Chapter 12.08 of Title 12, specifies that exterior noise levels listed below shall apply to all receptor properties within a designated noise zone:

- Noise sensitive area[1], anytime: 45 dB
- Residential properties, 10 p.m. to 7 a.m. (nighttime): 45 dB
- Residential properties, 7 a.m. to 10 p.m. (daytime): 50 dB
- Commercial properties, nighttime: 55 dB
- Commercial properties, daytime: 60 dB
- Industrial properties, anytime 70 dB

Relative to construction, it is prohibited to operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between 7 p.m. and 7 a.m. Monday through Saturday, or at any time on Sundays or holidays, such that the sound creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer.

[1] *Noise sensitive area* is defined as any area designated by conspicuous signs in at least three separate locations within 164 meters (one-tenth mile) of the institution or facility for the purpose of ensuring exceptional quiet (Los Angeles County Noise Control Ordinance 12.08.470).

Environmental Setting

The proposed Project would be located primarily within the City of Los Angeles, adjacent to the County of Los Angeles, with approximately 430 feet traversing Culver City. The primary noise sources in the Project area are traffic from highways and city streets, airplane noise, sounds emanating from neighborhoods (e.g., voices and radio and television broadcasts), and naturally occurring sounds (e.g., winds and wind-generated noises). Generally, intermittent, short-term noises do not significantly contribute to longer-term noise averages.

Noise-sensitive receptors in the Project area include residential areas, hospitals, schools, and nursing homes. The Culver West Convalescent Hospital is adjacent to the alignment. Thirteen schools are located within 0.25 mile of the proposed Project alignment. Of the thirteen, five schools would be located adjacent to the proposed alignment—James J. McBride and Pacifica Montessori Schools are located on Centinela Avenue, Ocean Charter School is located on Culver Boulevard, and Otis College of Art and Design and Loyola Marymount University are located on Lincoln Blvd.

Places such as churches or places of worship, libraries, and cemeteries are also sensitive to noise. Two places of worship are located within 200 feet of the proposed alignment (Westside Vineyard Fellowship and Marina Christian Fellowship). No libraries or cemeteries are located within 200 feet of the proposed alignment.

On August 8 and 9, 2011, short-term ambient noise measurements were taken at thirteen sites identified as representative locations along the proposed Project route. Noise measurement locations are listed below and illustrated in Figure 4.2.6-1. These sites were also selected in order to capture typical data for each of the land use areas along the route. The measurements included logging background ambient noise levels for a period of fifteen minutes during daytime periods.

Noise Measurement Locations:

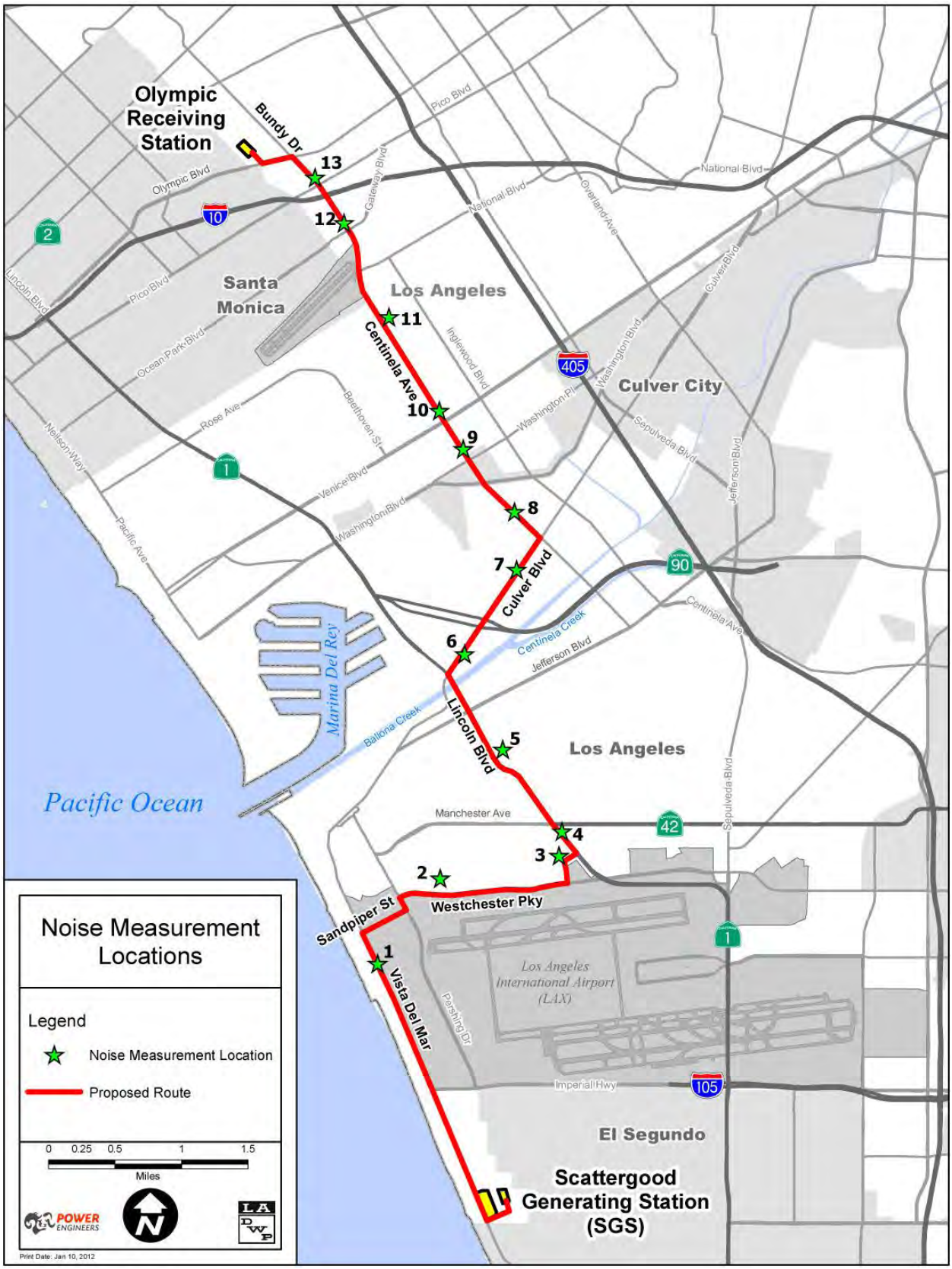
1. In front of park near 8200 Vista Del Mar
2. In front of school near 9000 Falmouth Avenue
3. Entrance to subdivision near 7100 West 91st Street
4. Parking lot of park and municipal building near 8700 Lincoln Boulevard
5. Parking lot of neighborhood park near 12330 West Bluff Creek Drive
6. Entrance to Little League fields near 13100 Culver Boulevard
7. On southeast side of Culver Boulevard access road at the end of Mascagni Street
8. East side of road near 4400 South Centinela Avenue
9. East side of road near 3930 South Centinela Avenue in front of school
10. Northwest corner of parking lot near 3770 Centinela Avenue adjacent to Pacifica Montessori School
11. Upper parking lot, next to baseball fields near Rose Avenue and South Centinela Avenue
12. East side of road near 2570 South Bundy Drive
13. North side of Tennessee Place just east of South Bundy Drive

Table 4.2.6-2 summarizes the data collected as well as the date, time, and locations of the measurements. The results of the measured ambient noise values provide a reasonable representation of the typical noise in the various areas along the Project route. L_{eq} is an equivalent sound level that is energy averaged A-weighted noise level over the measurement period (for these measurements the period is 15 minutes). Additional values are also provided (that represent spot measurements over a one-second interval), including L_{min}, L_{max} (the minimum and maximum values), as well as L_{xx} values where xx indicates the value that the measured noise is exceeded for this percent of the time (for example, an L_{50} value of 60 dBA indicates the measured noise was above 60 dBA 50% of the time). Typical L_{eq} values vary from approximately 54 dBA for quieter park areas slightly away from the major roads to approximately 74 dBA for busy roadways and near airports.

TABLE 4.2.6-2. SHORT-TERM AMBIENT NOISE MEASUREMENTS

SITE	LOCATION	DATE	START TIME	NOISE SOURCES	MEASURED VALUES (DBA)					
					L_{EQ}	L_{MAX}	L_{MIN}	L_{90}	L_{50}	L_{10}
1	In front of park near 8200 Vista Del Mar	8/8/11	11:23 AM	Air and vehicle traffic	**73.7**	89.0	45.9	52.5	68.3	77.6
2	In front of school near 9000 Falmouth Avenue	8/8/11	11:45 AM	Vehicle and some air traffic	**65.6**	79.3	44.6	48.0	57.4	70.7
3	Entrance to Subdivision near 7100 West 91st Street	8/8/11	1:18 PM	Aircraft noise and some traffic	**63.7**	78.1	47.0	52.5	59.2	67.8
4	Parking lot of park and municipal building near 8700 Lincoln Boulevard	8/8/11	1:38 PM	Nearby street traffic	**59.4**	68.1	52.0	56.1	58.9	61.5
5	Parking lot of park near 12330 West Bluff Creek Drive	8/8/11	1:59 PM	Some traffic, people in park, school construction	**57.2**	67.6	50.5	53.7	56.4	59.7
6	Entrance to Little League fields near 13100 Culver Boulevard	8/8/11	2:22 PM	Heavy traffic on Culver Boulevard	**67.6**	77.3	48.1	55.7	66.7	71.1
7	On southeast side of Culver Boulevard access road at the end of Mascagni Street	8/8/11	2:44 PM	Traffic on Culver Boulevard, sirens	**62.1**	83.9	46.4	49.6	55.2	59.9
8	East side of road near 4400 South Centinela Avenue	8/8/11	3:05 PM	Heavy traffic	**72.0**	82.6	52.0	61.0	70.5	75.3
9	East side of road near 3930 South Centinela Avenue in front of school	8/8/11	3:27 PM	Heavy traffic	**73.6**	85.0	53.8	63.5	71.3	77.6
10	Northwest corner of parking lot near 3770 Centinela Avenue adjacent to Pacifica Montessori School	8/8/11	3:48 PM	Heavy traffic	**70.0**	84.7	55.2	61.6	68.2	72.9
11	Upper parking lot, next to baseball fields near Rose Avenue and South Centinela Avenue	8/9/11	8:30 AM	Traffic from road below, people in park	**53.8**	68.4	43.9	47.0	52.0	56.5
12	East side of road near 2570 South Bundy Drive	8/9/11	8:52 AM	Heavy traffic	**74.7**	82.8	51.2	64.7	74.3	77.8
13	North side of Tennessee Place just east of South Bundy Drive	8/9/11	9:14 AM	Slowed traffic on South Bundy Drive	**61.9**	76.0	52.9	55.9	59.5	64.6

FIGURE 4.2.6-1. NOISE MEASUREMENT LOCATIONS



Thresholds Used to Determine Significance of Impact

The following significance thresholds are based on the environmental checklist presented in Appendix G of the CEQA Guidelines, and are used to determine the potential impacts of the proposed Project upon the sensitive noise receptors along the proposed Project area. The Project would have a significant noise impact if it would result in one or more of the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- Substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- 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, the project would expose people residing or working in the project area to excessive noise levels.
- For a project within the vicinity of a private airstrip, the project would expose people residing or working in the project area to excessive noise levels.

According to the City of Los Angeles' *L.A. CEQA Thresholds Guide* (2006), a project may have a significant impact on noise levels from construction if:

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use;
- Construction activities lasting more than 10 days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or
- 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 am or after 6:00 p.m. on Saturday, or anytime on Sunday.

Environmental Impacts

Construction noise would be created from sources at the work sites and around staging areas or access routes. On-site noise generated during construction would occur primarily from heavy-duty diesel-powered construction equipment and other construction equipment. Off-site noise would be generated from trucks delivering materials and equipment to construction sites, as well as from trucks hauling soil and from vehicles used by workers commuting to and from the staging sites. The following four staging areas have been identified to store equipment and materials for the construction of the Project: 1) Hyperion Terminal Tower located at 7500 Imperial Highway, Playa Del Rey; 2) Scattergood Generating Station located at 12700 Vista Del Mar, Playa Del Rey; 3) LAX holding area located at 10700 Pershing, Playa Del Rey; and 4) Olympic Receiving Station location at 1840 Centinela Avenue, Los Angeles.

To assess the potential noise effects from construction, this noise analysis used data from an extensive field study of various types of construction projects, including public works projects (EPA and Bolt, Beranek & Newman 1971). Noise levels associated with various construction phases where all pertinent equipment is present and operating, at a reference distance of 50 feet, are shown in Table 4.2.6-3. Because of vehicle technology improvements and more strict noise regulations since the 1971 field study was published, this analysis uses the average noise levels shown in Table 4.2.6-3 for the loudest construction phase (excavation and finishing phases). This information indicates that the overall average noise level generated on a construction site could be approximately 89 dBA at a distance of 50 feet during excavation and finishing phases.

TABLE 4.2.6-3. TYPICAL NOISE LEVELS FROM CONSTRUCTION ACTIVITIES FOR PUBLIC WORKS PROJECTS

CONSTRUCTION ACTIVITY	AVERAGE CONSTRUCTION ACTIVITY SOUND LEVEL AT 50 FEET (dBA)	TYPICAL DEVIATION (dB)
Compactors (Rollers)	74	1
Front Loaders	78	5
Backhoes	83	10
Tractors	86	10
Scrapers, Graders	87	7
Pavers	87	1
Trucks	88	6
Concrete Mixers	81	6
Concrete Pumps	82	1
Cranes (Moveable)	81	6
Cranes (Derrick)	87	1
Pumps	70	1
Generators	77	5
Compressors	81	6
Pneumatic Wrenches	86	3
Jack Hammers and Rock Drills	89	8
Vibrators	75	6
Saws	77	4

Source: Bolt, Beranek & Newman (prepared under contract for the EPA), Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, December 31, 1971. Sound level with all pertinent equipment operating.

The magnitude of construction noise impacts would depend on the type of construction activity, the noise level generated by various pieces of construction equipment, the duration of the activity, the distance between the activity and any sensitive noise receptors, and whether local barriers and topography provide shielding effects. Generally, temporary noise levels adjacent to construction areas range from 75 to 89 dBA, depending on the distance between the receptor and the source of noise.

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

Operation of the proposed Project would not generate noise; however, short-term construction activities would result in elevated noise levels (ranging from 75 to 89 dBA) at and near the work sites. The work would occur for short durations at all points along the proposed alignment. The temporary construction corridors would be approximately ten to twenty feet wide and 150 to 300 feet long. Assuming that a variance to the Mayor‘s Directive No. 2 is granted, typical construction hours would be Monday through Friday from 7:00 a.m. to 5:00 p.m. and Saturday from 8:00 a.m. to 6:00 p.m., and would comply with City of Los Angeles, City of Culver City, and Los Angeles County noise ordinances. However, construction of the underground transmission line would exceed the City of Los Angeles‘ noise ordinance of 75 dBA at a distance of 50 feet from construction machinery. In addition, the construction of segments of the underground transmission line would last more than one day and exceed the existing ambient exterior noise levels by 10 dBA, which would be considered significant.

Noise level increases of this magnitude, although temporary, would be readily audible and would dominate the noise environment in the area during construction operations. Although the noise ordinances of both the City of Los Angeles and Culver City exempt construction activities from noise standards (providing that such activities take place between the hours specified above for each respective municipality), Mitigation Measures NOI-l through NOI-7 would control and reduce the noise levels to the extent practicable, but would not reduce impacts to less than significant levels.

Noise levels from off-site, construction-related traffic (delivery trucks, automobiles, and haul trucks) would not significantly increase noise levels.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The proposed Project would not result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels. Cutting, removal, and repaving of asphalt and concrete within the roadways may cause localized groundborne vibration with heavy equipment activity; however, vibration would attenuate rapidly within a distance of 50 feet. Thus, impacts from groundborne vibration or groundborne noise would be less than significant.

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

Long-term operation of the proposed Project would not include any above-ground operations, with the exception of periodic maintenance and emergency maintenance work. As discussed under a) above, periodic maintenance operations would occur within daytime hours, would involve a small crew of three people and two vehicles at any given maintenance vault, and would generally not involve the use of heavy equipment. Emergency operations would generally involve similarly sized crews and vehicles and could potentially occur outside of daytime hours; however, the cities of Los Angeles and Culver City exempt emergency work from noise ordinances. Therefore, no impacts would occur.

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

As described under a) above, land uses near the proposed Project alignment would experience increased noise levels associated with construction. Noise levels could potentially range from 75 to 89 dBA depending on the distance from the proposed alignment. Construction noise impacts would be temporary in nature, but would last more than one day and exceed existing ambient exterior noise levels by 10 dBA or more. Long-term operation of the proposed Project would not include any above-ground operations, with the exception of periodic maintenance and emergency maintenance work, and would generally not involve the use of heavy equipment. Mitigation Measures NOI-l through NOI-7 would control and reduce the noise levels to the extent practicable; however, impacts from construction would still exceed the significance threshold and be considered significant impacts.

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?

The proposed Project is located adjacent to Los Angeles International Airport and Santa Monica Airport; however, operation of the proposed Project would not involve the generation of noise. Therefore, the proposed Project would not have the potential to expose people to excessive noise sources. No impacts would occur.

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?

The proposed Project area is not within the vicinity of a private airstrip. No impacts would occur.

Mitigation Measures

NOI-l: Within the city limits of Los Angeles, construction operations would not occur between the hours of 9:00 p.m. and 7:00 a.m.; in any residential zone, or within 500 feet of land so occupied, before 8:00 a.m. or after 6:00 p.m. on any Saturday; nor at any time on Sunday. Construction operations are also restricted in Culver City, but can occur between 8:00 a.m. and 8:00 p.m. Monday through Friday, 9:00 a.m. and 7:00 p.m. on Saturdays, and 10:00 a.m. and 7:00 p.m. on Sundays. These hours comply with local noise ordinances.

NOI-2: All noise-producing Project equipment and vehicles using internal combustion engines (including haul trucks) will be professionally fitted with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features. These devices will be professionally maintained in good operating condition so as to meet or exceed original factory specification. Mobile or fixed —pakage" equipment (e.g., air compressors) will be equipped with shrouds and noise control features that are readily available for that type of equipment.

NOI-3: Material stockpiles and mobile equipment staging, parking, and maintenance areas will be located as far as practicable from noise-sensitive receptors.

NOI-4: The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only.

NOI-5: Electrically powered equipment instead of pneumatic or internal combustion-powered equipment will be used, where feasible.

NOI-6: No Project-related public address or music system will be audible at any adjacent receptor.

NOI-7: Within 10 days of commencement of construction, the Project applicant will provide notice of construction schedule to surrounding neighborhoods and will post information on the site in a location visible to the public, including the hours of operation and contact person with telephone number.

Significance of Impact After Mitigation

After implementation of Mitigation Measures NOI-1 to NOI-7, construction activities would temporarily cause elevated noise levels (ranging from 75 to 89 dBA) along the construction corridors. This would exceed the City of Los Angeles‘ noise ordinances of 75 dBA at a distance of 50 feet from construction machinery and threshold significance of one day, and exceed the existing ambient exterior noise levels by 10 dBA. Therefore, impacts to noise would remain significant.

Cumulative Impacts

A majority of the cumulative projects would be approximately 0.25 mile or further from the proposed Project. There are a few projects that would be located in close proximity of the Olympic RS; however, they are located in an industrial area with no sensitive receptors. Construction for the repowering of the SGS would occur from 2013 through 2015 and construction of the proposed SOTLP transmission line would occur from late 2012 to late 2014. Although both projects would have overlapping construction periods, the construction of the SOTLP transmission line would not be concentrated in one location, but would occur along various segments of the proposed alignment. The use of the SGS as a staging location would only be temporary, approximately eight months, to construct the proposed SOTLP transmission line from SGS to Sandpiper Street. Therefore, noise generated from the construction of the SOTLP transmission line would occur for a very short duration near the SGS. Due to the distance and varied timing of construction, cumulative noise impacts are not anticipated.

4.2.7 TRAFFIC AND TRANSPORTATION

The purpose of the traffic section is to assess the impacts of proposed construction and operation of the SOTLP on the surrounding roadway system. The underground transmission line would be constructed in 40-foot long segments, with construction of multiple segments occurring simultaneously. Project construction is expected to peak in the year 2014 with an overall anticipated construction duration of 18 to 24 months (with variance from restrictions on roadway construction during rush hours obtained); if a variance is not obtained, construction of the SOTLP would take approximately 36 months. During this period, temporary lane closures of roadways along the proposed Project alignment would be required, although two-way travel along the affected roadways would be maintained during construction of the Project. The Traffic Study (KOA Corporation, February, 2012) analyzed potential traffic impacts at study roadway segments along the proposed routing alignment for the four scenarios described below. The complete Traffic Study (KOA Corporation, February, 2012) is included in Appendix D-4 of this EIR.

Existing (2011) Conditions: The existing (2011) traffic conditions provide the basis for the analysis, and include an assessment of traffic volumes and operating conditions (e.g., posted speed limits, number of travel lanes, and parking restrictions) along the roadway study segments. In support of the existing conditions analysis, daily vehicle counts were conducted on Thursday, June 16, 2011, Monday, June 20, 2011, and Tuesday, June 21, 2011.

Future (2014) Without Project Construction: Future (2014) traffic conditions were projected without construction of the proposed Project. In order to acknowledge regional traffic growth that would affect operations at the study roadway segments during the year 2014, an ambient (background) traffic growth rate was applied. In addition to future ambient growth, traffic attributable to area projects (approved and pending developments) was also included as part of the analysis.

Future (2014) with Project Construction: The future with Project conditions analyzes the future roadway conditions with the Project trip generation calculations. The Project trips were calculated from the number of work crews that would be working during construction distributed throughout the four staging areas within the Study Area.

Existing (2010) + Project Construction: To incorporate analysis consistent with recent CEQA case law (i.e., *Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council*, 190 Cal.App.4th 1351 [2010] [―Sunnyvale"]), this analysis considers traffic conditions based on the year the NOP was issued (2010) with the addition of traffic expected during peak construction. In order to analyze year 2010, the year 2011 counts were increased by five percent. This was determined through a comparison of 2010 Los Angeles Department of Transportation (LADOT) roadway segment counts with the roadway counts taken in 2011.

Federal

Code of Federal Regulations (CFR), Title 49, Subtitle B

The CFR provides guidelines for regulations pertaining to interstate and intrastate transport (including hazardous materials program procedures) and provides safety measures for motor carriers and motor vehicles that operate on public highways.

State

California Vehicle Code (CVC)

The CVC includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways; safe operation of vehicles; and the transportation of hazardous materials.

California Streets and Highway Code

The California Streets and Highway Code includes regulations for the care and protection of State and county highways and provisions for the issuance of permits.

The California Department of Transportation (Caltrans) would need to be contacted to obtain permits for the transport of over-sized loads, to obtain encroachment permits (if necessary), and to coordinate construction work on Lincoln Boulevard, a State Route facility.

Local

Local jurisdictions have adopted policies and guidelines for approval of the Project and construction-period work plans. Separate traffic study guidelines are published by the City of Los Angeles (via the Department of Transportation, West/Coastal Development Review), the City of Culver City, and the County of Los Angeles (via the Metro Congestion Management Program [CMP]).

City of Los Angeles Mayor's Directive #2 (2005)

Within the City of Los Angeles, the City of Los Angeles Mayor's Directive #2 formalizes the prohibition on rush hour construction by any City department or agency on major roads from 6:00 a.m. to 9:00 a.m. and 3:30 p.m. to 7:00 p.m. This includes both actual construction on city streets as well as the staging of equipment and materials.

Level of Service Values

Measurements for the assessment of traffic operations are based on a ratio of average daily volume on a roadway segment or at an intersection versus the volume that is calculated to be the design capacity (v/c ratio). The efficiency of traffic operations at a location is measured in terms of Level of Service (LOS). LOS measures average operating conditions during an hour; it is based on a V/C ratio, or delay. LOS ranges from A to F, with A representing excellent (free-flow) conditions, and F representing extreme congestion. The delay at an intersection or on a street segment corresponds to a LOS value, which describes the segment operations. Roadway segments and intersections with vehicular volumes that are at or near capacity experience greater congestion and longer vehicle delays. Table 4.2.7-1 describes the general roadway operations for each LOS value, as defined within the 2000 *Highway Capacity Manual* (published by the Transportation Research Board).

Generally, the minimum acceptable LOS for any intersection or roadway segment in an urbanized area is LOS D. The affected Study Area jurisdictions all consider LOS D the minimum acceptable LOS. Therefore, LOS D serves as the minimum acceptable standard for the Project Study Area.

TABLE 4.2.7-1. DEFINITIONS OF LEVEL OF SERVICE FOR ROADWAY SEGMENTS

Level of Service	Flow Conditions	Volume to Capacity Ratio
A	LOS A describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.	0.00-0.60
B	LOS B represents reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial classification. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.	0.61-0.70

Level of Service	Flow Conditions	Volume to Capacity Ratio
C	LOS C represents stable operations; however, ability to maneuver and change lanes in mid-block locations may be more restricted than at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average speeds of about 50 percent of the average free-flow speed for the arterial classification. Motorists will experience appreciable tension while driving.	0.71-0.80
D	LOS D borders on a range in which small increases in flow may cause a substantial increase in delay and hence decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these factors. Average travel speeds are about 40 percent of free-flow speed.	0.81-0.90
E	LOS E is characterized by significant delays and average travel speeds of one-third the free-flow speed of less. Such operations are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.	0.91-1.00
F	LOS F characterizes arterial flow at extremely low speeds below one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays and extensive queuing. Adverse progression is frequently a contributor to this condition.	Over 1.00

Environmental Setting

The Project area is located in western Los Angeles, an urban environment with numerous modes of transportation, such as freeways, public transportation, airports, and bicycle facilities. The traffic study assessed construction impacts on 18 roadway segments listed on Table 4.2.7-2 and illustrated on Figure 4.2.7-1.

Existing Roadway Network

Freeways

Four major freeways service the Project area—Interstate 10, Interstate 405, Interstate 105, and State Route 90. Interstate 10 (I-10), or the Santa Monica Freeway, is a major traffic east-west artery for Los Angeles. The Century Freeway, or I-105, runs east-west to Los Angeles International Airport (LAX). The I-405, also referred to as the San Diego Freeway, runs north and south. State Route 90, the Marina Freeway, is a relatively short east-west freeway that links Marina Del Rey to greater Los Angeles.

Major Arterials

The proposed Project alignment is generally located along major roadways with two to four travel lanes in each direction and center left-turn lanes. Curbside parking is generally allowed along most of the alignment; however, parking tends to be more restrictive near the airport and marina. Table 4.2.7-3 lists the study segment, number of lanes, median type, parking restrictions, adjacent land uses, and speed limits.

Eighteen traffic roadway segments were chosen based on the proposed Project route within the Study Area. Daily vehicle volume counts on study roadway segments for the baseline conditions were conducted on Thursday, June 16, 2011, Monday, June 20, 2011, and Tuesday, June 21, 2011 (refer to Table 4.2.7-4). These counts were conducted before local school districts entered summer sessions, in order to provide a snapshot of normal traffic flows during non-summer months.

2011 Average Daily Traffic

The existing traffic volumes within the Study Area range from 3,989 vehicles on Segment 13 (Loyola Boulevard) to 61,771 vehicles on Segment 10 (Lincoln Boulevard). On average, the northern (north of Manchester Avenue) study roadway segments operate at poor levels of service (LOS E or F). Roadway

segments south of Manchester Avenue operate at an excellent level of service (LOS A). The v/c ratios range from 0.177 (Segment 13 on Loyola Boulevard) to 1.478 (Segment 2 on Bundy Drive).

TABLE 4.2.7-2. ROADWAY SEGMENTS ANALYZED

	Roadway Segment	From	To
1	Olympic Blvd.	Centinela Ave.	Bundy Dr.
2	Bundy Dr.	Olympic Blvd.	Pico Blvd.
3	Bundy Dr.	Pico Blvd	Ocean Park Blvd.
4	Bundy Dr.	Ocean Park Blvd.	National Blvd.
5	Bundy Dr-Centinela Av	National Blvd.	Palms Blvd.
6	Centinela Ave.	Palms Blvd.	Venice Blvd.
7	Centinela Ave.	Venice Blvd.	Washington Pl.
8	Centinela Ave.	Washington Pl.	Mindanao Way
9	Culver Blvd.	McConnell Ave.	Marina Freeway
10	Lincoln Blvd.	Culver Blvd.	Jefferson Blvd.
11	Lincoln Blvd.	Jefferson Blvd.	Manchester Ave.
12	Lincoln Blvd.	Manchester Ave.	Loyola Blvd.
13	Loyola Blvd.	Lincoln Blvd.	Westchester Pkwy
14	Westchester Pkwy.	Loyola Blvd.	Falmouth Ave.
15	Westchester Pkwy	Falmouth Ave.	Pershing Dr.
16	Vista Del Mar	Sandpiper St.	Imperial Hwy
17	Vista Del Mar	Imperial Hwy	Grand Ave.
18	Grand Ave.	Vista Del Mar	Loma Vista St. SGS Driveway

FIGURE 4.2.7-1. TRAFFIC COUNT MEASUREMENT LOCATIONS

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TABLE 4.2.7-3. CHARACTERISTICS OF MAJOR ARTERIALS IN THE PROJECT AREA

	Segment	From	To	Lanes		Median Type	Parking Restrictions		Land Use	Speed Limit
				NB/EB	SB/WB		NB/EB	SB/WB		
1	Olympic Blvd.	Centinela Ave.	Bundy Dr.	3	3	2LT	MP 2Hr 8am-6pm	MP 30 Min or 2Hr 8am-6pm	Office	35
2	Bundy Dr.	Olympic Blvd.	Pico Blvd.	2	2	DY	No Restrictions	No Restrictions	Commercial/ Residential	35
3	Bundy Dr. *from Pico Blvd. to Ocean Park Blvd.*	Pico Blvd	10-E On Ramp	2	2	DY	NSAT	NSAT	Commercial/ Residential	35
		I-10 East On Ramp	Ocean Park Blvd.	2	2	2LT	No Restrictions	No Restrictions	Residential	35
4	Bundy Dr.	Ocean Park Blvd.	National Blvd.	2	2	2LT	No Restrictions	NSAT	Residential	40
5	Bundy Dr./Centinela Ave. *From National Blvd. To Palms Blvd.*	National Blvd.	Airport Ave.	2	2	2LT	NS 7am To 9pm	NSAT	Residential	40
		Airport Ave.	Rose Ave.	2	2	DY	NS 7am To 9pm	NSAT	Residential	40
		Rose Ave.	Palms Blvd.	2	2	2LT	4 Hrs 8am-6pm	4 Hrs 8am-6pm	Residential	40
6	Centinela Ave.	Palms Blvd.	Venice Blvd.	2	2	2LT	MP 2Hrs 8am-6pm/NP (Thursday) 8am-10am	15 min & 30 min 8am-6pm / NP (Wednesday) 8am-10am	Residential	40
7	Centinela Ave.	Venice Blvd.	Washington Pl.	2	2	2LT	MP 2Hrs 8am-6pm/1Hr 8am-6pm/ NP (Thursday) 8am-10am	NP (Wednesday) 8am-10am	Commercial/ Residential/ School	25/35
8	Centinela Ave. *From Washington Pl. to Culver Blvd.*	Washington Pl.	Short Ave.	2	2	DY	2 Hr 8am-6pm NP (Wednesday) 8am-12pm/ NP (Wednesday) 10am-12pm	1 Hr 8am-6pm/ 2 Hr 8am-6pm/ NP (Monday) 8am-10am/ NP (Thursday) 10am-12pm	Commercial/ Residential	No Posting
		Short Ave.	Culver Blvd.	2	2	DY	NP (Wednesday) 10am-12pm	2 Hr 8am-6pm/ NP (Thursday) 10am-12pm	Commercial	No Posting
9	Culver Blvd.	McConnell Ave.	Marina Freeway	2	2	2TL	NPAT	NP 11pm-5am/ NP (Wednesday) 10am-12pm/ NSAT	Commercial	40
10	Lincoln Blvd.	Culver Blvd.	Jefferson Blvd.	3/ 4	2/ 3	DY	NSAT	NSAT	Wetlands	45

	Segment	From	To	Lanes		Median Type	Parking Restrictions		Land Use	Speed Limit
				NB/EB	SB/WB		NB/EB	SB/WB		
11	Lincoln Blvd. *From Jefferson Blvd. To Manchester Ave.*	Jefferson Blvd.	Bluff Creek Dr.	4	4	RM	NSAT	NSAT	Residential	45
		Bluff Creek Dr.	Bluff Trail Rd.	4	3/ 4	RM	NSAT	NSAT	Residential	45
		Bluff Trail Rd.	83rd St.	4	3	RM/2LT	NSAT	NSAT	Residential	45
		83rd St.	Manchester Ave.	3/ 4	3	RM/DY	NS 7am-9am/ 2Hr 8am-6pm	NS 6am-9am/ NS 6am-9:30am/ 1Hr 1:30pm-3pm/ 1Hr 8:30am-3:30pm	Commercial	No Posting
12	Lincoln Blvd.	Manchester Ave.	Loyola Blvd.	4	3	RM	NSAT	No Restrictions	Commercial	No Posting
13	Loyola Blvd.	Lincoln Blvd.	Westchester Pkwy	2	1/ 2	2LT	NP 10pm-5am nightly/ NSAT	NP 10pm-5am nightly/ NSAT	Airport/ Residential	No Posting
14	Westchester Pkwy.	Loyola Blvd.	Falmouth Ave.	2	2	DY/RM	NSAT	NSAT	Airport	50
15	Westchester Pkwy	Falmouth Ave.	Pershing Dr.	2	2	RM	NSAT	NSAT	Airport	50
16	Vista Del Mar	Sandpiper St.	Imperial Hwy	2	2	DY	NP 10pm-6am/ NSAT	NP 10pm-6am/ NSAT	Airport	40
17	Vista Del Mar	Imperial Hwy	Grand Ave.	2	2	2LT	NSAT	NSAT	Ocean/ Industry	45
18	Grand Ave.	Vista Del Mar	SGS Driveway	1	2	DY	NSAT	NSAT	Industry	25

NP – No Parking
NS – No Stopping
NSAT – No Stopping Anytime
MP – Metered Parking
DY – Double Yellow
2LT – Dual Left Turn
RM – Raised Median
LM – Landscaped Median
SGS – Scattergood Generating Station

Existing 2011 Traffic

The a.m. (between the hours of 7:00 a.m. and 9:00 a.m.) and p.m. (between the hours of 4:00 p.m. and 6:00 p.m.) peak hour volumes and the associated level of service values for all segments are provided in Table 4.2.7-5. The a.m. and p.m. peak-hour volumes for the study roadway segments exhibit similar traffic operations to the average daily conditions; on average, the portion of the study route segments north of Manchester Avenue operate at generally poor LOS (LOS E or F), and roadway segments south of Manchester Avenue operate at excellent LOS (A).

During the a.m. peak hours, the following occurs under existing (2011) conditions:

- Operate at poor LOS (LOS E or F)—Segments 2 through 8 and Segment 10; Segments 5 and 10 have the highest v/c ratio of 1.349
- Operate at satisfactory LOS (LOS C or D)—Segments 1, 11, and 17
- Operate at excellent LOS (LOS A or B)—Segments 9, 12 through 16, and 18

During the p.m. peak hours, the following occurs under existing (2011) conditions:

- Operate at poor LOS (LOS E or F)—Segments 2 through 8, 10 and 11; Segment 10 has the highest v/c ratio of 1.578
- Operate at satisfactory LOS (LOS C or D)—Segments 1 and 17; would operate at LOS C
- Operate at excellent LOS (LOS A or B)—Segments 9, 12 through 16, and 18

Existing 2010 Traffic

A supplemental analysis was included in this document to comply with court rulings from the Sunnyvale case regarding CEQA baseline analysis that requires that the existing conditions period matches the date (year) of public circulation of the NOP; the NOP for the proposed Project was issued in 2010. Table 4.2.7-6 summarizes the existing peak-hour conditions analysis for the Study Area roadway segments for year 2010 conditions.

The existing 2010 traffic volumes are similar to 2011. During the a.m. peak hours, the following occurs under existing (2010) conditions:

- Operate at poor LOS (LOS E)—Segments 2 through 8 and Segment 10; Segments 5 and 10 have the highest v/c ratio of 1.417
- Operate at satisfactory LOS (LOS C or D)—Segments 1, 9, 11, and 17
- Operate at excellent LOS (LOS A or B)—Segments 12 through 16 and Segment 18

During the p.m. peak hour, the following occurs under existing (2010) conditions:

- Operate at poor LOS (LOS E or F)—Segments 2 through 8, 10 and 11; Segment 10 has the highest v/c ratio of 1.656
- Operate at satisfactory LOS (LOS C or D)—Segments 1, 9, and 17
- Operate at excellent LOS (LOS A)—Segments 12 through 16 and Segment 18

TABLE 4.2.7-4. 2011 AVERAGE DAILY TRAFFIC VOLUMES AND LOS

	Segment	From	To	Capacity	# of Lanes	Existing		
						Volume	V/C	LOS
1	Olympic Blvd	Centinela Ave	Bundy Dr	60,000	6	42,904	0.715	C
2	Bundy Dr	Olympic Blvd	Pico Blvd	30,000	4	44,336	1.478	**F**
3	Bundy Dr	Pico Blvd	Ocean Park Blvd	40,000	4	48,496	1.212	**F**
4	Bundy Dr	Ocean Park Blvd	National Blvd	40,000	4	44,937	1.123	**F**
5	Bundy Dr-Centinela Ave	National Blvd	Palms Blvd	40,000	4	44,511	1.113	**F**
6	Centinela Ave	Palms Blvd	Venice Blvd	40,000	4	36,343	0.909	**E**
7	Centinela Ave	Venice Blvd	Washington Pl	40,000	4	37,851	0.946	**E**

	Segment	From	To	Capacity	# of Lanes	Existing		
						Volume	V/C	LOS
8	Centinela Ave	Washington Blvd	Mindanao Way	40,000	4	34,380	0.860	D
9	Culver Blvd	McConnell Ave	Marina Freeway	40,000	4	18,166	0.454	A
10	Lincoln Blvd	Culver Blvd	Jefferson Blvd	50,000	5-7	61,771	1.235	**F**
11	Lincoln Blvd	Jefferson Blvd	Manchester Ave	60,000	6-8	52,955	0.883	D
12	Lincoln Blvd	Manchester Ave	Loyola Blvd	70,000	7	40,695	0.581	A
13	Loyola Blvd	Lincoln Blvd	Westchester Pkwy	22,500	3-4	3,989	0.177	A
14	Westchester Pkwy	Loyola Blvd	Falmouth Ave	40,000	4	9,744	0.244	A
15	Westchester Pkwy	Falmouth Ave	Pershing Dr	40,000	4	8,942	0.224	A
16	Vista Del Mar	Sandpiper St	Imperial Hwy	40,000	4	15,202	0.380	A
17	Vista Del Mar	Imperial Hwy	Grand Ave	40,000	4	21,857	0.546	A
18	Grand Ave	Vista Del Mar	SGS Driveway	22,500	3	6,367	0.283	A

TABLE 4.2.7-5. 2011 PEAK-HOUR VEHICLE VOLUMES AND LOS

	Segment	From	To	# of Lanes	Capacity	AM Peak			PM Peak		
						Volume	V/C	LOS	Volume	V/C	LOS
1	Olympic Blvd	Centinela Ave	Bundy Dr	6	4,500	3,377	0.750	C	3,425	0.761	C
2	Bundy Dr	Olympic Blvd	Pico Blvd	4	2,500	2,915	1.166	**F**	2,988	1.195	**F**
3	Bundy Dr	Pico Blvd	Ocean Park Blvd	4	2,500	3,321	1.328	**F**	3,554	1.422	**F**
4	Bundy Dr	Ocean Park Blvd	National Blvd	4	2,500	3,098	1.239	**F**	3,550	1.420	**F**
5	Bundy Dr-Centinela Ave	National Blvd	Palms Blvd	4	2,500	3,373	1.349	**F**	3,656	1.462	**F**
6	Centinela Ave	Palms Blvd	Venice Blvd	4	2,500	2,453	0.981	**E**	3,026	1.210	**F**
7	Centinela Ave	Venice Blvd	Washington Pl	4	2,500	2,665	1.066	**F**	2,893	1.157	**F**
8	Centinela Ave	Washington Blvd	Mindanao Way	4	2,500	2,506	1.002	**F**	3,132	1.253	**F**
9	Culver Blvd	McConnell Ave	Marina Freeway	4	2,500	1,746	0.698	B	1,699	0.680	B
10	Lincoln Blvd	Culver Blvd	Jefferson Blvd	5-7	3,125	4,217	1.349	**F**	4,930	1.578	**F**
11	Lincoln Blvd	Jefferson Blvd	Manchester Ave	6-8	4,500	3,811	0.847	D	4,123	0.916	E
12	Lincoln Blvd	Manchester Ave	Loyola Blvd	7	5,250	3,388	0.645	B	3,249	0.619	B
13	Loyola Blvd	Lincoln Blvd	Westchester Pkwy	3-4	1,350	285	0.211	A	393	0.291	A
14	Westchester Pkwy	Loyola Blvd	Falmouth Ave	4	2,500	780	0.312	A	709	0.284	A
15	Westchester Pkwy	Falmouth Ave	Pershing Dr	4	2,500	597	0.239	A	595	0.238	A
16	Vista Del Mar	Sandpiper St	Imperial Hwy	4	2,500	1,430	0.572	A	1,481	0.592	A
17	Vista Del Mar	Imperial Hwy	Grand Ave	4	2,500	2,034	0.814	D	2,041	0.816	D
18	Grand Ave	Vista Del Mar	SGS Driveway	3	1,350	465	0.344	A	608	0.450	A

TABLE 4.2.7-6. 2010* PEAK-HOUR VEHICLE VOLUMES AND LOS

	Segment	From	To	# of Lanes	Capacity	AM Peak			PM Peak		
						Volume	V/C	LOS	Volume	V/C	LOS
1	Olympic Blvd	Centinela Ave	Bundy Dr	6	4,500	3,546	0.788	C	3,596	0.799	C
2	Bundy Dr	Olympic Blvd	Pico Blvd	4	2,500	3,061	1.224	**F**	3,137	1.255	**F**
3	Bundy Dr	Pico Blvd	Ocean Park Blvd	4	2,500	3,487	1.395	**F**	3,732	1.493	**F**
4	Bundy Dr	Ocean Park Blvd	National Blvd	4	2,500	3,253	1.301	**F**	3,728	1.491	**F**
5	Bundy Dr-Centinela Ave	National Blvd	Palms Blvd	4	2,500	3,542	1.417	**F**	3,839	1.536	**F**
6	Centinela Ave	Palms Blvd	Venice Blvd	4	2,500	2,576	1.030	**F**	3,177	1.271	**F**
7	Centinela Ave	Venice Blvd	Washington Pl	4	2,500	2,798	1.119	**F**	3,038	1.215	**F**
8	Centinela Ave	Washington Blvd	Mindanao Way	4	2,500	2,631	1.053	**F**	3,289	1.315	**F**
9	Culver Blvd	McConnell Ave	Marina Freeway	4	2,500	1,833	0.733	C	1,784	0.714	C
10	Lincoln Blvd	Culver Blvd	Jefferson Blvd	5-7	3,125	4,428	1.417	**F**	5,177	1.656	**F**
11	Lincoln Blvd	Jefferson Blvd	Manchester Ave	6-8	4,500	4,002	0.889	D	4,329	0.962	**E**
12	Lincoln Blvd	Manchester Ave	Loyola Blvd	7	5,250	3,557	0.678	B	3,411	0.650	B
13	Loyola Blvd	Lincoln Blvd	Westchester Pkwy	3-4	1,350	299	0.222	A	413	0.306	A
14	Westchester Pkwy	Loyola Blvd	Falmouth Ave	4	2,500	819	0.328	A	744	0.298	A
15	Westchester Pkwy	Falmouth Ave	Pershing Dr	4	2,500	627	0.251	A	625	0.250	A
16	Vista Del Mar	Sandpiper St	Imperial Hwy	4	2,500	1,502	0.601	B	1,555	0.622	B
17	Vista Del Mar	Imperial Hwy	Grand Ave	4	2,500	2,136	0.854	D	2,143	0.857	D
18	Grand Ave	Vista Del Mar	SGS Driveway	3	1,350	488	0.362	A	638	0.473	A

*Traffic volumes presented in this table represent data for the year (2010) the NOP was circulated for public review.

Public Transportation Services

Several public transit agencies service the Project area, including Metro, Santa Monica Big Blue Bus, Culver City Bus, and Commuter Express service.

Culver City Bus

The Culver City Bus services an area of 25.5 square miles, which includes the communities of Venice, Westchester, Westwood, West Los Angeles, Palms, Marina Del Rey, Ranch Park, Mar Vista, Century City, and Culver City. The following routes are located in the Project area: 1 (Washington), 5 (Braddock), and 2 (Inglewood/Venice High School).

Commuter Express

The Commuter Express is a transit service operated by the Los Angeles Department of Transportation (LADOT). It provides service to downtown Los Angeles and generally operates Monday through Friday during peak commute hours. The 437 (Financial District – Marina Del Rey) and 438 (Financial District – Redondo Beach) routes are located in the Project area.

Metro

The Los Angeles County Metropolitan Transportation Authority (Metro) services an area of 1,433 square miles. Its service area includes the San Fernando Valley, San Gabriel Valley, South Bay, downtown Los Angeles, and West Los Angeles areas. Bus routes located within the Project area include: 33 (Downtown LA – Santa Monica), 108/358 (Marina Del Rey), 110 (Playa Vista), 115 (Playa Del Rey), 439 (Downtown LA – Culver City), and 733 (Downtown LA – Santa Monica). In addition, 625 (Metro Green Line) also operates in the vicinity.

The Santa Monica Big Blue Bus

The Santa Monica Big Blue Bus services an area covering 51.4 square miles, mainly within the City of Santa Monica and surrounding areas, but also extends services to LAX and downtown Los Angeles. The following routes are located in the Project area: 11 (Campus Connector), 14 (Bundy Drive/Centinela Ave), 7 (Pico Blvd), 6 (SMC Commuter), 2 (Santa Monica Blvd), and 3 (Montana Ave/Lincoln Blvd).

Air Transportation

Two airports are located in the Project area—LAX in the south and Santa Monica Municipal Airport in the north. LAX is the major airport serving Southern California and is one of the world‘s busiest airports. It occupies 3,425 acres within the City of Los Angeles and services approximately 80 passenger carriers and 20 cargo carriers. The Santa Monica Municipal Airport is a small public airport in the City of Santa Monica.

Bicycle Facilities

Bicycle paths in the Los Angeles area fall into three classes:

- Class I Bike Path: Completely separate from traffic.
- Class II Bike Lane: A lane on city streets set aside exclusively for bikes. California traffic laws state that cars may only pull into a path within 200 feet of making a right turn.
- Class III Bike Route: Purportedly safe city streets connected into a means of getting from one place to another on a bike.

The Project area contains four Class I bicycle paths—the Ballona Creek, South Bay Bike Trail, Culver Boulevard, and Strand bicycle paths. The Ballona Creek Bicycle path is a six-mile-long path that parallels Ballona Creek. It starts at Jefferson Boulevard in Culver City and ends at the Strand in Playa Del Rey. The proposed Project would cross Ballona Creek bicycle path on Lincoln Boulevard. The Strand bicycle path is a 22-mile-long path that runs along the Pacific Ocean. It starts at Will Rogers State Beach in

Pacific Palisades and ends at Torrance Beach in Torrance. In the Project area, it is located along Vista Del Mar. The South Bay Bike Trail is located along Vista Del Mar, and the Culver Boulevard bicycle path runs parallel to Culver Boulevard.

There are signed/striped bicycle lanes (Class II-type) located along Grand Ave., Pershing Drive, Westchester Parkway, and Venice Boulevard.

Signed bicycle routes (Class III) are located along the Lincoln Boulevard and Olympic Boulevard Project segments. Bicycles share travel lanes on these roadways.

Thresholds Used To Determine Significance of Impact

The following significance thresholds are based on the environmental checklist presented in Appendix G of the CEQA Guidelines, and are used to determine the potential impacts of the proposed Project upon traffic in the proposed Project area. A project would have a significant impact on traffic if it would result in one or more of the following:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
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.
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
e) Result in inadequate emergency access.
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The City of Los Angeles has established a CEQA Threshold Guideline that states, ~~"~~a proposed project would normally have a significant street segment capacity impact if project traffic causes an increase in the V/C ratio on the street segment operating condition after the addition of project traffic equal to or greater than the following:

- V/C ratio increase >0.080 if final LOS is C
- V/C ratio increase >0.040 if final LOS is D
- V/C ratio increase >0.020 if final LOS is E or F"

Environmental Impacts

The proposed Project is inherently more likely to affect transportation facilities during construction than during operation, because there is typically only a minimal amount of surface activity associated with inspection and maintenance for the operation of a transmission line. Consequently, the transportation analysis is devoted to the potential impacts during the construction phase.

Impact thresholds defined by the Los Angeles Department of Transportation and the 2010 Los Angeles County Congestion Management Program (CMP) were not utilized for the Project traffic analysis. These standards define significant impacts to traffic operations and the long-term mitigation of such impacts through the provision of additional traffic signal or roadway capacity, neither of which are included as part of the proposed Project. Further, an analysis of street segments, as included herein, is an appropriate analysis for assessing impacts associated with long linear projects. Intersection analyses are typically

performed for projects, such as residential or commercial development projects, that have a defined source of traffic generation. The construction of the proposed Project would constrict roadway capacity in affected segments analyzed herein; therefore, the discussion of impacts provided below concentrates on the capacity that can be provided along the affected roadway during Project construction. Therefore, the impact analysis included herein was based on roadway flow during construction and the generalized application of volume-to-capacity calculations for the roadway segments analyzed. Of particular concern were study locations that would worsen in operations to or within LOS values of E or F; these two values represent poor operating conditions.

Roadway Network

Construction of the proposed underground transmission line is anticipated to require the closure of one to two travel lanes along the proposed routing alignment; however, it is anticipated that two-way travel along the affected roadways would be maintained during construction. Estimated lane closures along each respective Study Area roadway segment anticipated to result from Project-related construction is presented in Table 4.2.7-7. Each construction crew would trench approximately 40-foot-long segments of duct bank each day, with a temporary construction work area approximately ten feet wide by 150 to 300 feet long. Trenches would be covered with steel plates every evening until the road surface is restored; this would allow for continued usage of the affected roadway. More trenching would occur farther down the street until the conduit system was installed for the entire alignment.

Construction of the proposed transmission line would occur concurrently on different roadway segments, and up to six construction crews would work along different road segments with an anticipated total of 240 feet of trenching per day. Each maintenance vault would take approximately three days to install, and is anticipated to require the closure of two lanes of vehicular travel along the affected roadway.

Table 4.2.7-8 lists the approximate construction duration for each street along the proposed alignment. As presented in Table 4.2.7-8, Vista Del Mar and Centinela Avenue are anticipated to require the longest construction duration due to the length of the underground transmission line within these streets.

TABLE 4.2.7-7. ESTIMATED LANE CLOSURES BASED ON CONSTRUCTION ACTIVITY

ACTIVITY	NUMBER OF LANES CLOSED
Surveying	1
Saw-cutting and Pavement Breaking	1
Trenching and Conduit Bank Installation	2
Excavation and Vault Installation	2
Cable Installation	1 or 2
Cable Splicing	1
Commissioning and Testing	1

TABLE 4.2.7-8. ESTIMATED CONSTRUCTION DURATION TIMES

AFFECTED STREET	APPROXIMATE CONSTRUCTION DURATION
Grand Avenue	15 to 20 days
Vista Del Mar	160 to 180 days
Sandpiper Street	30 to 35 days
Pershing Drive	3 to 5 days
Westchester Parkway	90 to 100 days
Loyola Boulevard	15 to 20 days
La Tijera Boulevard	3 to 8 days
Lincoln Boulevard	120 to 130 days
Transition Road from Lincoln to Culver	3 to 5 days

AFFECTED STREET	APPROXIMATE CONSTRUCTION DURATION
Culver Boulevard	90 to 100 days
Centinela Avenue	160 to 170 days
Bundy Drive	70 to 80 days
Olympic Boulevard	15 to 20 days

The construction of the proposed Project is anticipated to utilize the following four staging areas: (1) Hyperion Terminal Tower located at 7500 Imperial Highway, Playa Del Rey; (2) Scattergood Generating Station located at 12700 Vista Del Mar, Playa Del Rey; (3) LAX holding area located at 10700 Pershing, Playa Del Rey; and (4) Olympic RS located at 1840 Centinela Avenue, Los Angeles. The staging areas would be utilized to store construction equipment and materials, and construction workers would commute to these locations before moving on to specific construction areas along the proposed Project routing alignment.

The traffic analysis of Project construction conditions included the daily and peak-hour trips that would be generated by a 120-employee workforce. It was assumed that a total of 200 daily trips would be generated for the project with 100 a.m. weekday trips and 100 p.m. daily trips. These workforce trips considered carpooling at a factor of 1.2 employees per vehicle. The trips were included in the analysis of the Project corridor, based on the location of the above-described Project staging areas.

Future (2014) without Project Construction

Future (2014) traffic conditions were projected without construction of the proposed Project. This analysis predicted future traffic growth and operating conditions that could be expected to result from growth in the vicinity of the Project area in order to provide an appropriate baseline condition upon which the analysis of potential Project impacts could be derived.

The growth rate used for this analysis was based on the 2010 Los Angeles County CMP. The study segments are located in two separate regional statistic areas within the Los Angeles County; this includes Area 16 (Santa Monica) and Area 18 (South Bay/LAX). Segments 1 through 11 are located in Area 16 with a growth factor of 1.0084. Segments 12 through 18 are located in Segments 18 with a growth factor of 1.0078. In addition to future ambient growth, traffic from area projects (approved and pending developments) was also included in the analysis. Information regarding recently approved and pending developments was obtained from the cities of Los Angeles, Culver City, Santa Monica, and El Segundo.

Table 4.2.7-9 provides details regarding the future (2014) without Project construction analysis. During the a.m. peak hours, the following would occur:

- Operate at poor LOS (LOS E or F)—Segments 2 through 8, and Segments 10 and 17; Segments 3 and 5 would have the highest v/c ratio of 1.381
- Operate at satisfactory LOS (LOS C or D)—Segments 1, 9, and 11
- Operate at excellent LOS (LOS A or B)—Segments 12 through 17 and Segment 18

During the p.m. peak hours under the future (2014) without Project analysis, the following would occur:

- Operate at poor LOS (LOS E or F)—Segments 2 through 8, 10 through 11, and Segment 17; Segment 10 would have the highest v/c ratio of 1.609
- Operate at satisfactory LOS (LOS C or D)—Segments 1, 9, and 11
- Operate at excellent LOS (LOS A or B)—Segments 9 and 12 through 16

The following changes to local access and sub-regional travel are anticipated from the existing 2011 to future (2014) without Project construction:

- Segment 1 (Olympic Blvd.) would decrease from an LOS C to D during peak hours.

- Segment 6 (Centinela Ave.) would reduce from LOS E to F in the a.m. peak hours.
- Segment 9 (Culver Blvd.) would reduce from an LOS B to C in the a.m. peak hours.
- Segment 16 (Vista Del Mar) would reduce from an LOS A to B during peak hours.
- Segment 17 (Vista Del Mar) would reduce from an LOS D to an E during peak hours.
- Segment 18 (Grand Avenue) would reduce from an LOS A to B in the a.m. peak hours and LOS A to C in the p.m. peak hours.
- The v/c ratios would increase by 0.002 to 0.335. The greatest increase in v/c ratios (approximately 0.33) would occur on Segment 18 (Grand Avenue).

Future (2014) with Project Construction

Table 4.2.7-10 provides the anticipated future (2014) peak Project construction traffic, which includes construction employee commute vehicles. During the a.m. peak hours, the following would occur:

- Operate at poor LOS (LOS F)—15 of the 18 Segments (Segments 1 through 12 and Segments 16 through 18) would operate at LOS F; Segments 3, 5, and 17 would have v/c ratios greater than 2.5
- Operate at satisfactory LOS (LOS C or D)—Segment 14
- Operate at excellent LOS (LOS B)—Segments 13 and 15

The p.m. peak hours would be similar to a.m. peak hours:

- Operate at poor LOS (LOS E or F)—15 of the 18 Segments 3, 4, 5, and 17 would have v/c ratios greater than 2.7
- Operate at satisfactory LOS (LOS C or D)—Segments 13 and 14
- Operate at excellent LOS (LOS B)—Segment 15

When comparing traffic volumes for the existing 2011 data to future 2014 with Project construction scenarios, the following changes to local access and sub-regional travel are anticipated:

- Segment 1 (Olympic Blvd.) would decrease from an LOS C to F during peak hours.
- Segment 6 (Centinela Ave.) would reduce from LOS E to LOS F in the a.m. peak hours.
- Segment 9 (Culver Blvd.) would reduce from an LOS B to F during peak hours.
- Segment 11 (Lincoln Blvd.) would reduce from an LOS D in the a.m. and LOS E in the p.m. to an LOS F during peak hours.
- Segment 12 (Lincoln Blvd.) would reduce from an LOS B to LOS F during peak hours.
- Segment 13 (Loyola Blvd.) would reduce from an LOS A to LOS B in the a.m. peak and LOS D in the p.m. peak hours.
- Segment 14 (Westchester Parkway) would reduce from an LOS A to an LOS B in the a.m. and D in the p.m. peak hours.
- Segment 15 (Westchester Parkway) would reduce from an LOS A to LOS B during the peak hours.
- Segment 16 (Vista Del Mar) would reduce from an LOS A to LOS F during the peak hours.
- Segment 17 (Vista Del Mar) would reduce from an LOS D to LOS F during the peak hours
- Segment 18 (Grand Avenue) would reduce from an LOS A to LOS F during the peak hours.
- During the peak hours, the v/c ratios would increase by 0.4 (Segment 10) to 1.9 (Segment 17)

Several arterials, which provide both local access and sub-regional travel, would be impacted with construction of the proposed Project. When comparing the future 2014 without Project construction to 2014 with Project construction scenarios, the reduced roadway capacity would impact the Project corridor roadways as described below.

- Segment 1 (Olympic Blvd.) would reduce from LOS D to F in both the a.m. and p.m. peak hours.
- Segments 2 through 6 (Bundy Drive) would continue to operate at LOS F during peak hours; however, their v/c ratios would increase over 1.0 in both the a.m. peak hours.

- Segments 9 (Culver Blvd.) would reduce to an LOS F from an LOS C in the a.m. and LOS B in the p.m. peak hours.
- Segment 11 (Lincoln Blvd.) would reduce from an LOS D in the a.m. and LOS E in the p.m. peak hours to LOS F.
- Segment 12 (Lincoln Blvd.) would reduce from an LOS B in the a.m. and p.m. peak hours to an LOS F.
- Segment 13 (Loyola Blvd.) would reduce from an LOS A during peak hours to an LOS B in the a.m. and LOS D in the p.m.
- Segment 14 (Westchester Parkway) would reduce from an LOS A in the a.m. and p.m. peak hours to an LOS D in the am and C in the p.m.
- Segment 15 would reduce from an LOS A to an LOS B in the a.m. and p.m. peak hours.
- Segment 16 would reduce from an LOS B to an LOS F in the a.m. and p.m. peak hours.
- Segment 17 (Vista Del Mar) would reduce from an LOS E and reduce to an LOS F in the a.m. and p.m. peak hours.
- Segment 18 (Grand Avenue) would operate at LOS B in the a.m. and LOS C in the p.m. to LOS F in the a.m. and p.m. peak hours.
- During the a.m. peak hours, v/c ratios would increase by 0.344 (Segment 10) to 1.749 (Segment 17). During the p.m. peak hours, the v/c ratios would increase by 0.403 (segments 1 and 10) to 1.772 (Segment 17).

The proposed Project route would be adjacent to schools and commercial, residential, industrial, and recreational/open space land uses. Access to these land uses would be partially restricted during the construction period. Left-turn movements at intersection approaches and at mid-block driveway locations would likely be impacted, depending on the location of the planned trenching and duct bank and maintenance vault installation.

Existing (2010) + Project Construction

A supplemental analysis was conducted to comply with court rulings from the Sunnyvale case regarding CEQA baseline analysis that requires the existing conditions period matches the year the NOP is circulated for public review and comment. The NOP for the proposed Project was issued in 2010.

Based on the 2010 baseline traffic counts, Table 4.2.7-11 presents proposed construction traffic volumes, v/c ratios, and LOS for the existing (2010) + Project construction analysis. In the a.m. peak hours, 16 of the 18 segments would operate at LOS E or F; Segment 5 would have the highest v/c ratio of 2.623; Segment 15 would operate at LOS C; and Segment 13 would operate at LOS B. In the p.m. peak hours, 16 of the 18 segments would operate at LOS F; Segment 13 would operate at an LOS E; Segment 5 would have the highest v/c ratio of 2.844; Segment 14 would operate at LOS D; and Segment 15 would operate at LOS B.

When comparing the results of the existing (2010) + Project analysis (which utilizes year 2010 traffic counts) and the future (2014) with Project construction analysis (which utilizes 2011 traffic count data), the analysis shows that the existing (2010) + Project construction scenario would result in a reduced LOS in Segments 13 through 17.

TABLE 4.2.7-9. FUTURE (2014) WITHOUT PROJECT CONSTRUCTION

	Segment	From	To	Traffic Trips From Area Projects	AM Peak			Traffic Trips From Area Projects	PM Peak		
					Volume	V/C	LOS		Volume	V/C	LOS
1	Olympic Blvd	Centinela Ave	Bundy Dr	559	3,964	0.881	D	585	4,039	0.898	D
2	Bundy Dr	Olympic Blvd	Pico Blvd	173	3,112	1.245	**F**	274	3,287	1.315	**F**
3	Bundy Dr	Pico Blvd	Ocean Park Blvd	103	3,452	1.381	**F**	175	3,759	1.504	**F**
4	Bundy Dr	Ocean Park Blvd	National Blvd	86	3,210	1.284	**F**	139	3,719	1.488	**F**
5	Bundy Dr-Centinela Ave	National Blvd	Palms Blvd	50	3,451	1.381	**F**	85	3,772	1.509	**F**
6	Centinela Ave	Palms Blvd	Venice Blvd	39	2,513	1.005	**F**	71	3,122	1.249	**F**
7	Centinela Ave	Venice Blvd	Washington Pl	28	2,715	1.086	**F**	35	2,952	1.181	**F**
8	Centinela Ave	Washington Blvd	Mindanao Way	26	2,553	1.021	**F**	22	3,180	1.272	**F**
9	Culver Blvd	McConnell Ave	Marina Freeway	8	1,769	0.707	C	21	1,734	0.694	B
10	Lincoln Blvd	Culver Blvd	Jefferson Blvd	43	4,295	1.375	**F**	58	5,029	1.609	**F**
11	Lincoln Blvd	Jefferson Blvd	Manchester Ave	92	3,935	0.874	D	154	4,312	0.958	**E**
12	Lincoln Blvd	Manchester Ave	Loyola Blvd	48	3,462	0.660	B	76	3,350	0.638	B
13	Loyola Blvd	Lincoln Blvd	Westchester Pkwy	0	287	0.213	A	0	396	0.293	A
14	Westchester Pkwy	Loyola Blvd	Falmouth Ave	0	786	0.314	A	0	715	0.286	A
15	Westchester Pkwy	Falmouth Ave	Pershing Dr	0	602	0.241	A	0	600	0.240	A
16	Vista Del Mar	Sandpiper St	Imperial Hwy	69	1,510	0.604	B	93	1,586	0.634	B
17	Vista Del Mar	Imperial Hwy	Grand Ave	385	2,435	0.974	**E**	410	2,467	0.987	**E**
18	Grand Ave	Vista Del Mar	SGS Driveway	447	916	0.678	B	447	1,060	0.785	C

TABLE 4.2.7-10. FUTURE (2014) WITH PROJECT CONSTRUCTION

	Segment	From	To	# of Lanes*	Capacity	AM Peak			PM Peak		
						Volume	V/C	LOS	Volume	V/C	LOS
1	Olympic Blvd	Centinela Ave	Bundy Dr	5	3,125	3,988	1.276	**F**	4,063	1.300	**F**
2	Bundy Dr	Olympic Blvd	Pico Blvd	3	1,350	3,112	2.306	**F**	3,287	2.435	**F**
3	Bundy Dr	Pico Blvd	Ocean Park Blvd	3	1,350	3,452	2.557	**F**	3,759	2.784	**F**
4	Bundy Dr	Ocean Park Blvd	National Blvd	3	1,350	3,210	2.378	**F**	3,719	2.755	**F**
5	Bundy Dr-Centinela Ave	National Blvd	Palms Blvd	3	1,350	3,451	2.557	**F**	3,772	2.794	**F**
6	Centinela Ave	Palms Blvd	Venice Blvd	3	1,350	2,513	1.861	**F**	3,122	2.313	**F**
7	Centinela Ave	Venice Blvd	Washington Pl	3	1,350	2,715	2.011	**F**	2,952	2.187	**F**
8	Centinela Ave	Washington Blvd	Mindanao Way	3	1,350	2,553	1.891	**F**	3,180	2.356	**F**
9	Culver Blvd	McConnell Ave	Marina Freeway	3	1,350	1,769	1.310	**F**	1,734	1.285	**F**
10	Lincoln Blvd	Culver Blvd	Jefferson Blvd	4-6	2,500	4,296	1.719	**F**	5,030	2.012	**F**
11	Lincoln Blvd	Jefferson Blvd	Manchester Ave	5-7	3,125	3,936	1.260	**F**	4,313	1.380	**F**
12	Lincoln Blvd	Manchester Ave	Loyola Blvd	5	3,125	3,462	1.108	**F**	3,350	1.072	**F**
13	Loyola Blvd	Lincoln Blvd	Westchester Pkwy	1-2	450	287	0.638	B	396	0.880	D
14	Westchester Pkwy	Loyola Blvd	Falmouth Ave	2	900	791	0.879	D	720	0.799	C
15	Westchester Pkwy	Falmouth Ave	Pershing Dr	2	900	607	0.674	B	605	0.672	B
16	Vista Del Mar	Sandpiper St	Imperial Hwy	2	900	1,511	1.679	**F**	1,587	1.763	**F**
17	Vista Del Mar	Imperial Hwy	Grand Ave	2	900	2,451	2.723	**F**	2,483	2.759	**F**
18	Grand Ave	Vista Del Mar	SGS Driveway	1	450	929	2.064	**F**	1,073	2.384	**F**

* Number of lanes open for travel during construction taking into account anticipated lane closures.

TABLE 4.2.7-11 EXISTING (2010) + PROJECT CONSTRUCTION

	Segment	From	To	# of Lanes*	Capacity	AM Peak			PM Peak		
						Volume	V/C	LOS	Volume	V/C	LOS
1	Olympic Blvd	Centinela Ave	Bundy Dr	5	3,125	3,570	1.142	**F**	3,620	1.158	**F**
2	Bundy Dr	Olympic Blvd	Pico Blvd	3	1,350	3,061	2.267	**F**	3,137	2.324	**F**
3	Bundy Dr	Pico Blvd	Ocean Park Blvd	3	1,350	3,487	2.583	**F**	3,732	2.764	**F**
4	Bundy Dr	Ocean Park Blvd	National Blvd	3	1,350	3,253	2.410	**F**	3,728	2.761	**F**
5	Bundy Dr-Centinela Ave	National Blvd	Palms Blvd	3	1,350	3,542	2.623	**F**	3,839	2.844	**F**
6	Centinela Ave	Palms Blvd	Venice Blvd	3	1,350	2,576	1.908	**F**	3,177	2.354	**F**
7	Centinela Ave	Venice Blvd	Washington Pl	3	1,350	2,798	2.073	**F**	3,038	2.250	**F**
8	Centinela Ave	Washington Blvd	Mindanao Way	3	1,350	2,631	1.949	**F**	3,289	2.436	**F**
9	Culver Blvd	McConnell Ave	Marina Freeway	3	1,350	1,833	1.358	**F**	1,784	1.321	**F**
10	Lincoln Blvd	Culver Blvd	Jefferson Blvd	4-6	2,500	4,429	1.772	**F**	5,178	2.071	**F**
11	Lincoln Blvd	Jefferson Blvd	Manchester Ave	5-7	3,125	4,003	1.281	**F**	4,330	1.386	**F**
12	Lincoln Blvd	Manchester Ave	Loyola Blvd	5	3,125	3,557	1.138	**F**	3,411	1.092	**F**
13	Loyola Blvd	Lincoln Blvd	Westchester Pkwy	1-2	450	299	0.665	B	413	0.917	**E**
14	Westchester Pkwy	Loyola Blvd	Falmouth Ave	2	900	824	0.916	**E**	749	0.833	D
15	Westchester Pkwy	Falmouth Ave	Pershing Dr	2	900	632	0.702	C	630	0.700	B
16	Vista Del Mar	Sandpiper St	Imperial Hwy	2	900	1,503	1.669	**F**	1,556	1.729	**F**
17	Vista Del Mar	Imperial Hwy	Grand Ave	2	900	2,152	2.391	**F**	2,159	2.399	**F**
18	Grand Ave	Vista Del Mar	SGS Driveway	1	450	501	1.114	**F**	651	1.448	**F**

* Calculations used the minimum number of lanes for roadway segments where variable lane configurations exist.

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Street Parking and Pedestrian Access

The proposed Project route would be constructed within existing roadways that include a range of two to five lanes of travel adjacent to areas of residential, educational, commercial, industrial, and recreational/open space uses. The majority of the Project route would be constructed on roadways with adjacent commercial uses. Access to adjacent properties would be partially restricted during working hours for the Project's construction period (approximately three to five days for each 40-foot-long roadway segment). Left-turn movements at intersection approaches and at mid-block driveway locations would likely be impacted during construction of the proposed Project, depending on the ultimate location of the transmission line.

Construction along the Project corridor roadways in Los Angeles and Culver City would likely require the closure of on-street parking along the route. Since this is temporary and construction corridors would occur in short 150- to 300-foot-long segments, parking could be found within adjacent blocks. Parking demand that is currently absorbed by the roadways along the Project route would be expected to move to side streets or adjacent blocks.

Construction of the Project transmission line conduit could potentially impact pedestrian movements on sidewalks and at crosswalk locations. It is important that marked pedestrian crosswalks be maintained throughout Project construction, especially when a school or transit stop is located nearby. They should be replaced temporarily, immediately beyond the construction work area, with a new mid-block crosswalk that is clearly marked to ensure that the temporary crosswalks are visible to motorists.

Considerations for maintained access to adjacent residential driveways, as feasible, would be incorporated into the construction planning process. During construction hours (Monday through Saturday from 7 a.m. to 5 p.m.), access along the Project route would be temporarily unavailable in some locations; however, trenches and maintenance vaults would be covered with steel plates every evening to allow access to adjacent driveways.

Public Transportation Services

Project construction would require the closure of one or two travel lanes and may result in left-turn restrictions. This may disrupt the following public transportation services in the Project area:

Metro
- Line 108/358 – Potential impact at Centinela Avenue/Mindanao Way

Santa Monica Big Blue Bus
- Line 3 – Potential impact at Lincoln Boulevard/Manchester Avenue
- Line 6 – Potential impact at Centinela Avenue/Pico Boulevard, Centinela Avenue/Venice Boulevard, and Ocean Park Boulevard/Bundy Drive
- Line 11 – Potential impact at Centinela Avenue /Pico Boulevard

Culver City Bus
- Line 2 – Potential impact Centinela Avenue/Venice Boulevard
- Line 5 – Potential impact at Centinela Avenue/Pico Boulevard and Centinela Avenue/Culver Boulevard

Commuter Express
- Line 437 – Potential impact at Centinela Avenue/Mindanao Way
- Line 438 – Potential impact at Vista Del Mar/Imperial Highway

Where bus stops would be affected by Project construction activities (blocked bus stops, diverted traffic is sent into bus stop curb lane areas), temporary bus stop closures should be accommodated with

replacement bus stops outside of the immediate work area. The temporary stops, however, would need to be located along wide portions of the roadway where the maximum number of travel lanes can be accommodated during construction.

Air Transportation

LADWP is proposing an underground transmission line, which would not require physical impediments to navigable airspace; therefore, no impacts would occur.

Bicycle Facilities

The Project area contains four Class I bicycle paths—the Ballona Creek, South Bay Bike Trail, Culver Boulevard, and Strand bicycle paths. The Ballona Creek Bicycle path is a six-mile-long path that parallels Ballona Creek. It starts at Jefferson Boulevard in Culver City and ends at the Strand in Playa Del Rey. The proposed Project would cross Ballona Creek bicycle path on Lincoln Boulevard. The Strand bicycle path is a 22-mile-long path that runs along the Pacific Ocean. It starts at Will Rogers State Beach in Pacific Palisades and ends at Torrance Beach in Torrance. In the Project area, it is located along Vista Del Mar. The South Bay Bike Trail is located along Vista Del Mar, and the Culver Boulevard bicycle path runs parallel to Culver Boulevard.

Class II signed/striped bicycle lanes are located along the Pershing Drive, Westchester Parkway, and Venice Boulevard Project segments. Closure of these lanes could be necessary during Project construction. If these lanes are closed and direct alternates are not provided during construction, bicycle lane closure signs would be posted at the next major intersections at each end of the construction area.

Class III signed bicycle routes are located along the Lincoln Boulevard and Olympic Boulevard Project segments. Bicycles share travel lanes on these roadways, and construction activities would create potentially unsafe conditions for bicyclists under restricted capacity conditions. Bicycle route closure signs would be posted at the next major intersections at each end of the construction area.

Would the Project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

The proposed Project would conflict with the City of Los Angeles Mayor‘s Directive #2 that prohibits construction on major roads during rush hour periods (6:00 a.m. to 9:00 a.m. and 3:30 p.m. to 7:00 p.m.), if construction takes place during these times. As part of the variance to the Directive, and as part of construction during times outside rush hour periods of traffic, detailed traffic handling plans would be prepared, and subject to the approval of the City of Los Angeles, to minimize traffic-related impacts during construction.

However, no complete street closures are anticipated. Vista Del Mar (Segments 16 and 17) and Centinela Avenue (Segments 6 though 8) would require the longest construction duration due to the length of the underground transmission line within these streets. During construction, all roadway segments, with the exception of Segments 13 through 15, would operate at an LOS F (worst case). When comparing the Existing 2011 and Future 2014 with construction traffic volumes, during the a.m. peak hours, the v/c ratios would range from an increase of 0.526 (Segment 1 on Olympic Boulevard) to 1.909 (Segment 17 on Vista Del Mar); during the p.m. peak hours, the v/c ratios would range from an increase of 0.539 (Segment 1) to 1.934 (Segment 17). When comparing the 2014 without Project construction and 2014 with Project construction scenarios, the v/c ratios in the a.m. peak hours would increase by 0.344

(Segment 10) to 1.749 (Segment 17); during the p.m. peak hours, the v/c ratios would increase by 0.403 (Segment 10) to 1.772 (Segment 17). The reduction of the LOS and increased v/c ratios would result in a significant, but temporary, impact to traffic.

Existing on-street parking along the Project route would be utilized as traffic lanes to minimize traffic lane closures during construction. This may affect parking along Segments 1 through 9, 11 through 13, and 16. Directional capacity (generally northbound/westbound in the a.m. peak and southbound/eastbound in the p.m. peak) would also be considered in roadway closure planning where work area placement is flexible. The provision of the original one-way capacity of the affected roadway (in number of travel lanes) in the peak direction, while providing a reduced number of travel lanes for the opposite direction of traffic flow, would help to alleviate any potential poor LOS conditions. Left-turn lanes and other approach lanes (as feasible) would be maintained in close vicinity to major intersections along the proposed Project route.

Localized traffic impacts due to lane closures during construction would require detailed traffic handling plans to provide continued through access via detours for vehicles, and to provide for adequate pedestrian and transit circulation. Signed detour routes and other potential routes that drivers would utilize during the construction period would become alternate routes for a proportion of the vehicles that would otherwise travel along the corridor where construction would be taking place.

If needed, Project detour routes, wayfinding signs and other relevant traffic control devices would be placed on all major roadways into the larger area around each construction location, and would be repositioned for each construction phase (as the construction zones progress along the Project corridor). Wayfinding signs would be placed at major detour decision points, to keep vehicles on-track through the detour route, and would also be placed at the next major intersection location in advance of the first detour decision point. The final location of all wayfinding signs and traffic control devices would be proposed during the design process, which would include all traffic control plans.

Mitigation measure TR-1 would be implemented to require the preparation of a Traffic Management Plan (TMP) that details construction traffic control and, if needed, detour methods for each phase of construction. The plans would be prepared by a registered traffic or civil engineer, as appropriate, based on City of Los Angeles and City of Culver City permit guidelines. The design of traffic management plans would be performed in consultation with local transit agencies to minimize impacts to passenger loading areas and to minimize travel times on scheduled transit routes. All affected transit agencies would contacted to provide for any required modifications or temporary relocation of transit facilities. The plan would be approved by the applicable local jurisdiction(s) for each construction segment prior to the start of work within public roadways along the Project corridor. Methods to inform the public regarding Project construction and roadway detours and closures would be implemented.

Caltrans would be contacted to obtain permits for the transport of oversized loads, and to obtain encroachment permits for work along State Route facilities.

Even with the implementation of TR-1, impacts to traffic would be considered a significant but temporary impact. After completion of construction, operation of the proposed 230 kV underground transmission line would not generate additional traffic; therefore, the Project would not result in permanent impacts to traffic.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Project-related traffic impacts would occur during construction activities only; no traffic impacts are anticipated upon Project completion. The County of Los Angeles CMP LOS impact thresholds are not

intended to be applied to construction activities. The Project would not generate any new measurable and regular vehicle trips during the operations period, and thus would have a less than significant impact.

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?

The proposed Project is an underground transmission line that would be constructed within the existing roadways; therefore, no changes or impacts would occur to the existing air traffic patterns.

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

The proposed Project would construct the underground transmission line within the existing roadways; no design changes to the existing roadways or use of roadways would occur. Therefore, no impacts to design features or incompatible uses would occur.

e) Result in inadequate emergency access?

Underground construction activities may potentially interfere with emergency response by ambulance, fire, paramedic, and police vehicles. The loss of a lane and the resulting increase in congestion could lengthen the response time required for emergency vehicles passing through the construction zone. However, it is anticipated that two-way travel along the affected roadways would be maintained during construction to allow continued emergency response access. Therefore, impacts to emergency access would be less than significant.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Project construction would require the closure of one or two travel lanes and may result in left-turn restrictions. Construction of the proposed Project is also anticipated to temporarily affect public transit, bicycle, or pedestrian facilities during construction activities.

Public transportation that may be affected as a result of Project construction includes the following: Metro Line 108/35; Santa Monica Big Blue Bus Lines 3, 6, and 11; Culver City Bus Lines 2 and 5; and Commuter Express Lines 437 and 438. Project construction activities may require the use of existing bus stop curb lane areas. To the extent practicable, temporary bus stop closures would be accommodated with replacement bus stops outside of the immediate work area. These temporary closures, however, would need to be located along wide portions of the roadway where the maximum number of travel lanes could be accommodated during construction.

Class I designated bicycle lanes would not be impacted by the proposed Project, because construction would occur within the existing roadways. Closure of existing Class II signed/striped bicycle lanes along Pershing Drive, Westchester Parkway, and Venice Boulevard may be necessary during Project construction. Alternative bike access routes would be established, to the extent practicable. In the event that direct alternates are not provided during construction, bicycle lane closure signs would be posted at the next major intersections to the north and south of the construction area. Class III signed bicycle routes located along Lincoln Boulevard and Olympic Boulevard would share existing vehicular travel lanes during Project construction. As a result, construction-related activities would potentially create unsafe conditions for bicyclists under restricted capacity conditions; therefore, these particular bicycle routes would be closed temporarily. To notify the public, signs would be posted at the next major intersections to the north and south of the construction area.

The City of Los Angeles and the City of Culver City would require that worksite traffic control and detour plans be developed. With the implementation of TR-1, impacts to public transit, bicycle, or pedestrian facilities would be less than significant. No impacts to public transit, bicycle, or pedestrian facilities are anticipated upon Project completion.

Mitigation Measures

TR-1: Transportation Management Plans (TMPs). Prior to construction, a Traffic Management Plan (TMP) would be prepared and submitted to all agencies with jurisdiction of public roads that would be affected by the underground transmission line construction. TMPs would define the use of flag persons, warning signs, lights, barricades, cones, etc. according to standard guidelines outlined in the Caltrans Traffic Manual, the Standard Specifications for Public Works Construction, and the Work Area Traffic Control Handbook (WATCH).

Significance of Impact After Mitigation

The Project construction activities would temporarily result in reduced roadway capacities. After Project construction, traffic conditions along the Project corridor would revert to pre-construction conditions. However, even with the implementation of the mitigation measures, a temporary unavoidable significant impact would occur to traffic.

Cumulative Impacts

Construction of the SOTLP would occur over an 18- to 24-month period that is anticipated to occur from late 2012 through late 2014. Construction activities would peak in 2014, with a total of approximately 120 construction workers. To determine cumulative impacts, the estimated year 2014 traffic conditions were combined with known area projects and the proposed Project traffic impacts.

Area projects within the Study Area that could have a potentially large impact to traffic include the Westside Medical Center Project, which is a large mixed-use development with medical office uses, commercial uses, and residential uses. Additionally, there are a few school projects (university, high school, and middle school) and several commercial projects that were considered. The construction of the SGS Repowering Project would occur from 2013 to 2015, which would result in overlapping construction periods.

Based on the application of ambient growth rates and trips generated by area projects, baseline conditions for the study roadway segments were computed. The roadway segments most directly affected by the area projects would be on Olympic Boulevard and Washington Boulevard (Segments 1 and 2), where several projects would be located, as well as along Vista Del Mar and Grand Avenue (Segments 16 through 18) for the construction of the SGS Repowering Project. During construction, increased truck traffic along these roadway segments would thus contribute to a cumulatively considerable significant impact. After completion of construction, the proposed Project would not contribute to long-term cumulative impacts.

4.2.8 WATER QUALITY AND HYDROLOGY

Regulatory Framework

The Project must comply with various federal, State, and local laws. The following is a list of laws and policies relevant to water resources.

Federal

Section 404 Clean Water Act. Waters of the U.S. including wetlands are subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the Clean Water Act (CWA). A Section 404 permit is required for only the discharge of dredged or fill material into Waters of the U.S. The Los Angeles District of the USACE would provide review and permitting services for this Project, if any are needed.

Section 401 Clean Water Act. Pursuant to Section 401 of the CWA, a water quality certification is required from the Los Angeles Regional Water Quality Control Board (RWQCB) for Section 404 permit activities within their Region. The RWQCB certifies that the discharge complies with State water quality standards and ensures that there is no net loss of wetlands through impact avoidance, minimization, and mitigation.

Section 303(d) Clean Water Act. Section 303(d) unites the water quality management strategies of the CWA. Section 303(d) requires that states make a list of waters that exceed the minimum level of pollutants put in place by the CWA. For waters on this list, the states must develop total maximum daily loads (TMDLs) that account for all sources of the pollutants that caused the water to be listed. The TMDLs must account for contributions from both point sources and nonpoint sources, as defined by Section 402 of the CWA. In California, the State Water Resources Control Board (SWRCB) has interpreted State law (see Porter-Cologne Water Quality Control Act below) to require that implementation of TMDLs be addressed when incorporated into Basin Plans (water quality control plans).

State

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act defines "water quality objectives" as the allowable limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area." Thus, water quality objectives are intended to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. Water quality objectives apply to both Waters of the United States and Waters of the State.

Basin Plans. The SWRCB requires individual RWQCBs to develop Basin Plans (water quality control plans) designed to preserve and enhance water quality and protect the beneficial uses of all Regional waters. Specifically, Basin Plans designate beneficial uses for surface waters and groundwater, set narrative and numerical objectives that must be attainted or maintained to protect the designated beneficial uses and conform to the State's antidegradation policy, and describe implementation programs to protect all waters in the Regions. In addition, Basin Plans incorporate by reference all applicable State and Regional Board plans and policies, and other pertinent water quality policies and regulations. The Project is under the jurisdiction of the Basin Plan of the Los Angeles Regional Water Quality Control Board.

Construction Storm Water Program. The SWRCB and the nine RWQCBs implement water quality regulations under the federal CWA and California Porter-Cologne Water Quality Control Act. Existing water quality regulations require compliance with the National Pollutant Discharge Elimination System (NPDES) for discharges of storm water runoff associated with a construction activity.

Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation; however, the permit does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which lists Best Management Practices (BMPs) the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Local

Los Angeles County Draft General Plan. The Los Angeles County Draft General Plan sets forth goals and policy direction for the management of the County's water resources, including conservation of water supply, protection of water quality, and conservation of natural areas to minimize water pollution and soil erosion and sedimentation, and aid in ground water recharge (County of Los Angeles 1980).

City of Los Angeles General Plan. The City of Los Angeles General Plan sets forth policies to manage or prevent erosion of both hillsides and beach sands, protect habitats such as coastal wetlands, and prevent further contamination of Santa Monica Bay with a view to eventually restoring it to a healthier state.

City of Culver City General Plan. The City of Culver City General Plan has not set forth policies specific to hydrology and water quality.

Environmental Setting

The Project is within the Santa Monica Bay Watershed (Hydrologic Unit Code 18070104), which drains an area of approximately 414 square miles into the Santa Monica Bay. The watershed follows the crest of the Santa Monica Mountains on the north to Griffith Park. From Griffith Park, the watershed extends south/southwest across the Los Angeles Plain to include the area east of Ballona Creek and north of the Baldwin Hills. South of Ballona Creek, the natural drainage is a narrow coastal strip between Playa del Rey and Palos Verdes (RWQCB 2010).

The Project is within the Southern California Coastal Plain, which consists of gently to strongly sloping dissected coastal and alluvial plains that are bordered by steep hills and mountains. Elevations range from sea level to 1,970 feet (600 meters). The coastal plains consist of thick layers of river-laid sediments, which are coarse in texture, toward the mountains and finer-textured sediments toward the ocean (NRCS 2006). The Santa Monica Bay itself is part of the Southern California Bight, which extends from Point Conception to the north to Cape Colnett in Baja California, and with the California Current as the Bight's seaward boundary (RWQCB 2010). The average annual precipitation in the Project area is 12.22 inches, all of which falls as rain, and the mean maximum temperatures range from 65.1°F (18.4°C) in the winter to 76.4°F (24.7°C) in summer (WRCC 2011).

The majority of the Project area is urbanized, and most natural drainages have been channelized. The Project would cross Ballona Creek via the Lincoln Boulevard Bridge; this stretch of Ballona Creek is channelized, while the Ballona Creek Wetlands remain north and south of the channel. Just north of the Ballona Escarpment, the Project would also cross an intermittent stream that has its source in stormwater runoff and generally parallels the base of the Escarpment from an outfall south of the intersection of West Bluff Court and West Centinela Avenue, draining into the wetlands on the south side of Ballona Creek.

A 100-year floodplain is an area of land that has at least a one percent chance of inundation every year, or at least once every 100 years. The Federal Emergency Management Agency (FEMA) has estimated and mapped 100-year floodplains throughout the watershed. Due to urbanization and channelization of natural drainages, there are relatively few 100-year floodplains in the immediate Project area. Only one 100-year floodplain would be crossed by the Project: the 100-year floodplains associated with Ballona Creek would be crossed at the Lincoln Boulevard Bridge.

The Stone Canyon Reservoir is located in the Santa Monica Mountains approximately 5.25 miles north of the Olympic RS. The reservoir is a complex of two reservoirs, the Upper Stone Canyon Reservoir and the Lower Stone Canyon Reservoir. From the receiving station south to the Ballona Escarpment, the Project is within the inundation area of the Lower Stone Canyon Reservoir (DRP 2011).

Tsunami Inundation Maps for coastal areas in Southern California identify tsunami inundation hazard areas. The Project would cross the tsunami inundation area associated with Ballona Creek, and would run

adjacent to the upper limit of the coastal tsunami inundation area along Vista Del Mar south of Sandpiper Street.

The Project would be located within the Coastal Plain of Los Angeles County Groundwater Basin, and would cross through two groundwater basins: the Santa Monica Subbasin and the West Coast Subbasin. The Santa Monica Subbasin is bounded by the impermeable rock of the Santa Monica Mountains on the north, the Ballona Escarpment on the south, the Inglewood Fault on the east, and the Pacific Ocean on the west. Total storage capacity of this subbasin is estimated to be approximately 1,100,000 acre-feet (af). The West Coast Subbasin is bounded by the Ballona Escarpment on the north, the Newport-Inglewood Fault Zone on the east, the consolidated rocks of the Palos Verdes Hills on the south, and the Pacific Ocean on the west. Total storage capacity of this subbasin is estimated to be approximately 6,500,000 af (DWR 2004). Recent groundwater level measurements range from 16 feet below the surface in the north to 99 feet below the surface in the west (LADWP 2011); however, these wells are located inland, and since groundwater flows southward and westward from the central coastal plain toward the ocean, groundwater would occur at levels closer to the surface in the southwestern portion of the Project.

Water quality is a measure of the suitability of water for its intended uses, with respect to dissolved solids, gases, and suspended material. Surface and groundwater quality objectives for the proposed Project area are described in the Los Angeles Region Water Quality Control Plan (Basin Plan). Additional groundwater quality objectives are described in California‘s Groundwater Bulletin 118. Water quality objectives were established to protect the existing and potential beneficial uses of surface water and groundwater.

Beneficial uses are goals or desired uses of a water body as specified in the Basin Plan, or as designated by federal, State, or local laws and regulations. Surface waters adjacent to the proposed Project (e.g., Ballona Creek) have the designated existing or potential beneficial uses of Municipal and Domestic Supply; Water Contact Recreation; Non-contact Water Recreation; Warm Freshwater Habitat; Estuarine Habitat; Wildlife Habitat; Rare, Threatened, or Endangered Species; Migration of Aquatic Organisms; Spawning; Shellfish Harvesting; and Wetland Habitat.

Each Regional Board has, pursuant to their respective Basin Plan, developed narrative or numerical water quality objectives for various parameters. These objectives apply to all inland surface waters, enclosed bays, wetlands, estuaries, and groundwater. Table 4.2.8-1 lists the water quality objectives for pertinent parameters for surface waters within the Project area.

TABLE 4.2.8-1. SUMMARY OF WATER QUALITY OBJECTIVES FOR SURFACE WATERS IN THE PROJECT AREA

Parameter	Water Quality Objective
Ammonia (Total)	23 mg/L (1-hour average, at pH 7.0 and 20°C)
Bacteria (Fecal Coliform)	Not to exceed a log mean of 200/100 ml (REC-1), 2000/100 ml (REC-2) during 30-day period.
Bioaccumulation	Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels that are harmful to aquatic life or human health.
Biochemical Oxygen Demand	Waters shall be free of substances that result in increases in the BOD that adversely affect beneficial uses.
Biostimulatory Substances	Shall not occur in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
Chemical Constituents	Shall not contain concentrations in amounts that adversely affect beneficial uses.
Chlorine, Total Residual	Shall not be present in concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses.

Parameter	Water Quality Objective
Color	Shall not contain coloration that causes nuisance or adversely affects beneficial uses.
Exotic Vegetation	Shall not be introduced around stream courses to the extent that such growth causes nuisance or adversely affects beneficial uses.
Floating Material	Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
Methylene Blue Activated Substances (MBAS)	MBAS concentrations shall not be higher than 0.5 mg/L in waters designated MUN[1].
Nitrogen (Total), Nitrate, Nitrite[2]	Shall not exceed: Total Nitrogen: 10 mg/L Nitrate: 45 mg/L Nitrite: 1 mg/L
Oil and Grease	Shall not contain oils, greases, waxes, or other materials in concentrations that result in visible film or coating on water surface of objects, that cause nuisance or adversely affect beneficial uses.
Oxygen, Dissolved	Not to be less than 5.0 mg/L, or: WARM: 5 mg/L COLD: 6 mg/L COLD & SPWN: 7 mg/L
Pesticides	Waters designated MUN shall not contain concentrations in excess of those specified in Table 64444-A of Section 64444 of Title 22 of the California Code of Regulations.
pH	Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.
Polychlorinated Biphenyls (PCBs)	The purposeful discharge of PCBs is prohibited. Uncontrollable discharges are limited to 70 pg/L (for protection of human health) and 14 ng/L (for protection of aquatic life).
Radioactive Substances	Shall not occur in concentrations in excess of those specified in Table 4 of Section 64443 of Title 22 of the California Code of Regulations.
Solid, Suspended, or Settleable Materials	Waters shall not contain substances or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses.
Taste and Odor	Waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
Temperature	Temperature of WARM waters shall not be altered by more than 5° above natural temperature, and shall not be raised above 80° as result of waste discharges. Temperature of cold waters shall not be altered by more than 5° above the natural temperature.
Toxicity	Waters shall not contain toxic substances in concentrations that are toxic to, or produce detrimental physiological responses in, human, plant, animal, or aquatic life.
Turbidity	Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Controllable increases in turbidity shall not exceed 20% where natural turbidity is between 0 and 50 NTU[3], and 10% where natural turbidity is greater than 50 NTU.

Source: Chapter 3 of the Basin Plan for the Los Angeles RWQCB.

1. MUN = Municipal or domestic water body.

2. For surface waters within the Project area.

3. NTU = Nephelometric turbidity units.

Under Section 303(d) of the CWA, States, territories, and authorized tribes are required to develop a List of Water Quality Limited Segments. Waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology.

The law requires that these jurisdictions develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality. Streams listed on the Section 303(d) List of Water Quality Limited Segments are considered sensitive resources, and are protected from water quality impacts. The Project would cross over (along Lincoln Boulevard) or be located adjacent to (within existing roadways) three Section 303(d)-listed water bodies; this includes Ballona Creek, Ballona Creek Estuary, and Ballona Creek Wetlands. Ballona Creek is listed as impaired by cadmium (in sediment), coliform bacteria, dissolved copper, cyanide, lead, selenium, toxicity, trash, enteric viruses, and zinc. In addition, a Shellfish Harvesting Advisory has been placed on Ballona Creek. Ballona Creek Estuary is listed as impaired by cadmium, chlordane, coliform bacteria, copper, DDT, lead (in sediment), polycyclic aromatic hydrocarbons (PAHs) (in sediment), polychlorinated biphenyls (PCBs) (in sediment), sediment toxicity, silver, and zinc (in sediment). Ballona Creek Wetlands are listed as impaired by exotic vegetation, habitat alterations, hydromodifications, reduced tidal flushing, and trash.

Groundwater quality in the West Coast Subbasin is impaired by seawater intrusion along Santa Monica Bay. Within the Project area, one seawater barrier project is currently in operation. The West Coast Basin Barrier Project runs from the Los Angeles International Airport to the Palos Verdes Hills and utilizes injection wells to create a groundwater ridge that inhibits the inland flow of salt water into the subbasin to protect and maintain groundwater quality. Groundwater quality impairments in the Santa Monica Subbasin are unknown (DWR 2004).

Thresholds Used To Determine Significance of Impact

The transmission line is inherently more likely to affect hydrology and water quality during construction than during operations, because there is typically only a minimal amount of surface activity for the operation of an underground transmission line. Consequently, the impact analysis is devoted to the potential impacts during the construction phase.

The following significance thresholds are based on the environmental checklist presented in Appendix G of the CEQA Guidelines, and are used to determine the potential impacts of the proposed Project upon hydrology and water quality in the proposed Project area. A project would have a significant impact on hydrology and water quality if it would result in one or more of the following:

a) Violate any water quality standards or waste discharge requirements.
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).
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.
g) 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 that would result in flooding on- or off-site.
h) 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.
i) Otherwise substantially degrade water quality.
j) Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map.
k) Place within a 100-year floodplain structures that would impede or redirect flood flows.
l) 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.
m) Inundation by seiche, tsunami, or mudflow.

Environmental Impacts

Would the Project:

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

Temporary direct and indirect impacts to water quality could result from stormwater runoff during construction of the Project. Excavation for construction of the transmission line and vault system would involve substantial ground-disturbing activities; in addition, vegetation clearing of staging areas may be required. Disturbed soils accelerate erosion and increase sediment in stormwater runoff to receiving waters, causing increased turbidity and sedimentation. Where groundwater is encountered, dewatering during construction activities could potentially release contaminated groundwater to surface water channels, drainage features, or storm drains. Additionally, fuel, oil, and other fluids used in construction vehicles, equipment, and heavy machinery could enter drainages and storm drains and contaminate water.

Should horizontal dry boring be required to avoid infrastructure (*e.g.*, large storm drains or sewer lines), excavation of a bore pit and trench would potentially result in impacts to water quality similar to excavation of trenches.

A SWPPP would be prepared to minimize or prevent sediment-laden or contaminated stormwater from leaving Project work areas and entering local waterways and storm drains. The Project would develop a dewatering plan and submit it to the RWQCB in support of a *Discharges of Groundwater from Construction Dewatering to Surface Waters* permit. If groundwater is encountered during excavation activities, it would be removed from the work area and disposed of in accordance with the approved dewatering plan and Los Angeles RWQCB permit requirements.

With implementation of measures required in the SWPPP, potential impacts to water quality from sedimentation, turbidity, and oil or chemical contamination would be less than significant, and no mitigation would be 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)?

Operation of the proposed Project would not involve groundwater withdrawal. If groundwater is encountered during construction-related excavation activities, it would be removed from the work area and disposed of in accordance with the approved dewatering plan and permit requirements. Groundwater discharges within transmission line and maintenance vault excavations would not occur in sufficient quantities or duration to result in depletion of groundwater supply, lowering of the groundwater table, or net deficit of aquifer volume. The transmission line would be constructed underground, except for the bridge crossing at Lincoln Boulevard Bridge, and the modifications to Olympic RS and the SGS would occur within the existing footprints of each facility and would not result in additional impervious surfaces that would interfere with groundwater recharge. Impacts to groundwater volume or recharge would be less than significant, and no mitigation would be 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?

The proposed Project would involve trenching through developed (paved) city streets or construction within the existing footprint of the Olympic RS and SGS, and trenches would be repaved when construction of the underground transmission line is complete. The transmission line would cross Ballona

Creek via a conduit bank anchored to an open bay on the underside of the Lincoln Boulevard Bridge, and would not result in alteration of the course of Ballona Creek. The drainage north of the Ballona Escarpment is culverted beneath Lincoln Boulevard, and would not be affected by construction activities. The identified staging areas are located on flat terrain, and would not require grading. The Project would not involve alteration of existing topography, and no impact would occur.

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 that would result in flooding on- or off-site?

As described in c) above, the Project would not involve alteration of drainage patterns or alteration of the course of a stream or river. The Project would be located beneath paved city streets and within the footprint of the existing Olympic RS and SGS, and would not result in an increase in the amount or rate of surface runoff. No impact would occur.

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?

As previously described, Project construction activities would occur along developed urban streets, and would not introduce new impervious surfaces that would create or contribute additional runoff water to the stormwater drainage systems. During construction, the contractor may use minimal amounts of water for dust control and cleanup activities, but not in quantities sufficient to produce runoff. In addition, implementation of applicable BMPs as described in the SWPPP would prevent or minimize sediment- or contaminant-laden stormwater from leaving the work areas. In the event that groundwater is encountered, implementation of the dewatering plan and compliance with dewatering permit requirements would prevent excessive or contaminated groundwater from reaching stormwater drainage systems. With implementation of the SWPPP, dewatering plan, and permit requirements, if any, the Project would not exceed the capacity of existing or planned stormwater drainage systems, nor would it provide substantial additional sources of polluted runoff. Impacts would be less than significant, and no mitigation would be required.

f) Otherwise substantially degrade water quality?

As previously discussed in a) and e) above, the Project would implement SWPPP BMPs and the dewatering plan, as applicable, throughout the Project; additionally, the Project would adhere to all requirements of applicable permits, including the Construction Stormwater Permit and groundwater discharge permit, throughout the Project. Potential Project-related water quality degradation would thus be minimized, and impacts would be less than significant.

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

The Project would not involve placement of housing within a 100-year floodplain. No impact would occur, and no mitigation would be required.

h) Place within a 100-year floodplain structures that would impede or redirect flood flows?

Only one 100-year floodplain would be crossed by the Project: the 100-year floodplains associated with Ballona Creek would be crossed at the Lincoln Boulevard Bridge. The transmission line would cross Ballona Creek via a conduit bank anchored to an open bay on the underside of the Lincoln Boulevard Bridge and would be above the 100-year floodplain, which is confined to the upper limits of the channel. The remainder of the Project would be located outside of 100-year floodplains. No Project structures

would be located within a 100-year floodplain, and no impacts would occur. No mitigation would be required.

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?

There are no levees within the Project area. The portion of the Project north of the Ballona Escarpment lies within the Stone Canyon Reservoir Inundation Area, and could be affected in the event of a catastrophic collapse of the dam. However, the Project as described would not add to the existing risk and therefore would not expose people or structures to a significant risk as a result of levee or dam failure. No impact would occur, and no mitigation would be required.

j) Inundate by seiche, tsunami, or mudflow?

The Project would cross the tsunami inundation area associated with Ballona Creek, and would run adjacent to the upper limit of the coastal tsunami inundation area along Vista Del Mar south of Sandpiper Street. However, the tsunami inundation area for Ballona Creek is confined to the upper reaches of the channel, and would not affect the transmission line, which would be within a conduit bank anchored to an open bay on the underside of the Lincoln Boulevard Bridge. South of Sandpiper Street, the transmission line would be adjacent to the upper limit of the tsunami inundation area, but the transmission line and maintenance vaults would be underground, and would neither affect nor be affected by a tsunami. Modifications at the Olympic RS and SGS would occur within the existing facility footprints, which are not within a tsunami inundation area. No impact would occur, and no mitigation would be required.

Mitigation Measures

All impacts to hydrology and water quality would be at a level of less than significant or no impact. Therefore, no mitigation measures would be required.

Significance of Impact After Mitigation

There are no significant impacts to hydrology and water resources.

Cumulative Impacts

As no significant impacts to hydrology and water resources are anticipated within the Project area or its vicinity, no cumulatively significant impacts are expected to result from Project construction and operation.

4.2.9 ELECTRIC AND MAGNETIC FIELDS

Introduction

This section describes electric and magnetic fields (EMF) in the vicinity of the SOTLP. This section does not consider EMF in the context of CEQA and determination of environmental impact, first because there is no agreement among scientists that EMF does create a potential health risk, and second because there are no defined or adopted CEQA standards related to EMF. Therefore, the information presented is for the benefit of the public and decision-makers. An EMF Management Plan has also been prepared and can be found in Appendix F.

EMF are present wherever electricity flows: around appliances, equipment, wiring, and transmission lines. Electric fields are present whenever voltage exists on a wire, and are not dependent on current. The magnitude of the electric field is primarily a function of the configuration and operating voltage of the transmission line and decreases with the distance from the source. The strength of an electric field is measured in volts per meter (V/m) or kilovolts per meter (kV/m).

Magnetic fields are present whenever current flows in a conductor, and are not dependent on the voltage of the conductor. The strength of these fields also decreases with distance from the source. However, unlike electric fields, most common materials have little blocking effect on magnetic fields. In the United States, magnetic fields are measured in units called Gauss. However, for the low levels normally encountered near electric utility facilities, the field strength is expressed in a much smaller unit, the milliGauss (mG), which is one thousandth of a Gauss. Much of the world's scientific community measures magnetic field strength in units of Tesla (T) and microTesla (μT), where 10,000 G = 1 T, 1G = 100 μT, and 1mG = 0.1 μT.

Since electric fields are effectively blocked by most materials, such as trees and walls, the majority of the following information related to EMF focuses primarily on exposure to magnetic fields. Table 4.2.9-1 lists an estimated average magnetic field exposure from residential sources. It is noteworthy that some of the common sources of higher magnetic fields are appliances and electrical devices found within the home. The magnetic field levels from such sources in typical use can range up to hundreds of mG or higher; however, the duration of exposure from many appliances is typically much shorter than that from other sources.

TABLE 4.2.9-1. RESIDENTIAL SOURCES: REDUCTION OF MAGNETIC FIELDS WITH DISTANCE

Source	Magnetic Field Strength (mG)		
	1 Foot Away	2 Feet Away	4 Feet Away
Blenders	20	3	-
Digital Clock	8	2	1
Color Televisions	20	8	4
Window Air Conditioners	20	6	4
Washing Machines	30	6	-
Vacuum Cleaners	200	50	10
Drills	40	6	-
Power Saws	300	40	4

Source: "EMF Questions & Answers," U.S. National Institute of Environmental Health Services, EMF-RAPID Program, 2002

Magnetic fields diminish with distance, but can pass through most materials. Fields from compact sources (i.e., those containing coils, such as small appliances and transformers) drop off with distance ~~"r"~~ from the source by a factor of $1/r^3$. For three-phase power lines with balanced currents, the magnetic field strength drops off at a rate of $1/r^2$. Fields from unbalanced currents that flow in paths (such as neutral or ground conductors) fall off in inverse proportion to the distance from the source, 1/r. Conductor spacing and configuration also affect the rate at which the magnetic field strength decreases, as well as the presence of other sources of electricity. The magnetic field levels of transmission lines will vary with loading conditions of the power system. Table 4.2.9-1 also shows how the magnetic field strength is reduced at various distances away from various sources of magnetic fields.

Environmental Setting

Land use along the proposed alignment consists of a variety of uses. In the southern portion of the Project area, land use along Grand Avenue, Vista Del Mar, and Sandpiper Street consists of a combination of industrial and recreational/open space uses. Land adjacent to the proposed alignment along Westchester Parkway consists of LAX on the south and vacant land on the north. Along Loyola Boulevard, La Tijera Boulevard, and Lincoln Boulevard, land adjacent to the proposed alignment consists of a combination of residential, commercial, recreational/open space, and educational facilities. Land adjacent to the proposed alignment along Centinela Avenue, Bundy Drive, and Olympic Boulevard consists of a combination of residential, commercial, industrial, educational, and recreational/open space uses.

EMF receptors in the Project area include schools, daycare centers, and residential, commercial/industrial, and recreational land uses. Schools (public and private) and daycare centers are typically considered

receptors of greatest public interest and concern. Unpopulated areas are of least concern, since those areas have limited or no public exposure.

Five schools are located adjacent to the proposed alignment. The James J. McBride and Pacifica Montessori Schools are located on Centinela Avenue, which is an approximately 70-foot-wide street. Ocean Charter School is located on Culver Boulevard, an approximately 50-foot-wide street. The Otis College of Art and Design is located on La Tijera Boulevard, an approximately 60-foot-wide street. Loyola Marymount University is located on Lincoln Boulevard, an approximately 110-foot-wide street. The California Department of Education (CDE) has provided guidance to Local Educational Agencies that wish to seek an exemption from school site power transmission line setbacks as established in the California Code of Regulations, Title 5, Section 14010(c). This guidance has been developed in consultation with international experts on the health effects of EMF; State agencies such as the Department of Health Services, the Division of the State Architect, and the CPUC; electric utilities; school districts; consultants; and private citizens with an interest in the topic. These guidelines recommend a setback distance of 37.5 feet for schools proposed near 230 kV underground transmission lines. The proposed routing alignment meets the CDE requirements.

Six parks are located adjacent to the proposed alignment: Dockweiler State Beach, Westchester Recreation Center, Vista Del Mar Park, Playa Vista Park, Culver Marina Little League, and Santa Monica Airport Park.

EMF Research

For more than 20 years, questions have been asked regarding the potential EMF effects on humans. A substantial amount of research investigating both electric and magnetic fields has been conducted in response. However, much of the body of national and international research regarding EMF and public health risks remains contradictory or inconclusive. Research related to EMF can be grouped into three general categories: cellular level studies, animal and human experiments, and epidemiological studies. These studies have provided mixed results, with some studies showing an apparent relationship between magnetic fields and health effects while other, similar studies do not. Although some reports state that EMF could have the potential to cause some degree of increased risk, the degree of risk was never quantified, nor was the specific level of EMF exposure that could constitute a health risk (CPUC 2003). Research on possible health effects associated with EMF is continuing. Chapter 7 lists major research efforts, along with website addresses where the reports can be read. These efforts include those by the California Department of Health Services and the National Institute of Environmental Health Sciences. In addition, reliable information on possible EMF health effects can be found on the websites of recognized national and international organizations such as the World Health Organization and National Cancer Institute. These are also included in Chapter 7.

Calculated Magnetic Fields

EMF can be calculated using information on voltage or currents (loading conditions). The electrical current that is available is measured in Amps. To understand the anticipated magnetic field levels with the implementation of the Proposed Project, the construction of a new 230 kV underground transmission line was assumed to occur within the middle of the street. The existing Scattergood-Olympic 230 kV transmission line electrical current loadings from December 2010 to November 2011 were utilized as a basis for calculating the magnetic fields of the proposed Project. It was determined that the average loading was 187 Amps and the 95 percentile loading was 751 Amps. The 95 percentile current is the historical current value that was exceeded only 5 percent of the time. The load currents are assumed to be balanced between the three phases. The loads can vary during the 24 hour day and/or throughout the year.

The magnetic field strength values are calculated one meter above the ground. The calculated magnetic fields were determined for a perpendicular profile distance of 100 feet on both sides of the center of the duct bank of the proposed 230 kV transmission line.

Two duct bank configurations were analyzed to assess potential Project-related EMF levels—this includes a horizontal (Figure 4.2.9-1) and triangular (Figure 4.2.9-2) duct bank configuration. The horizontal duct bank configuration represents the preliminary design, or "base case," configuration in which the top of the duct bank is buried at a depth of approximately three feet below the ground surface and the cables are arranged horizontally along the bottom of the duct bank. The triangular configuration represents the "low cost" duct bank configuration proposed for a majority of the route (at the SGS, Olympic RS, and some substructure crossings, this design cannot be used) in which the top of the duct bank of the proposed transmission line would be buried at a depth of approximately three feet below the ground surface and the cables are arranged in a "delta" (triangular) configuration; the triangular design would cost more than four percent of the total Project cost.

FIGURE 4.2.9-1. HORIZONTAL DUCT BANK CONFIGURATION

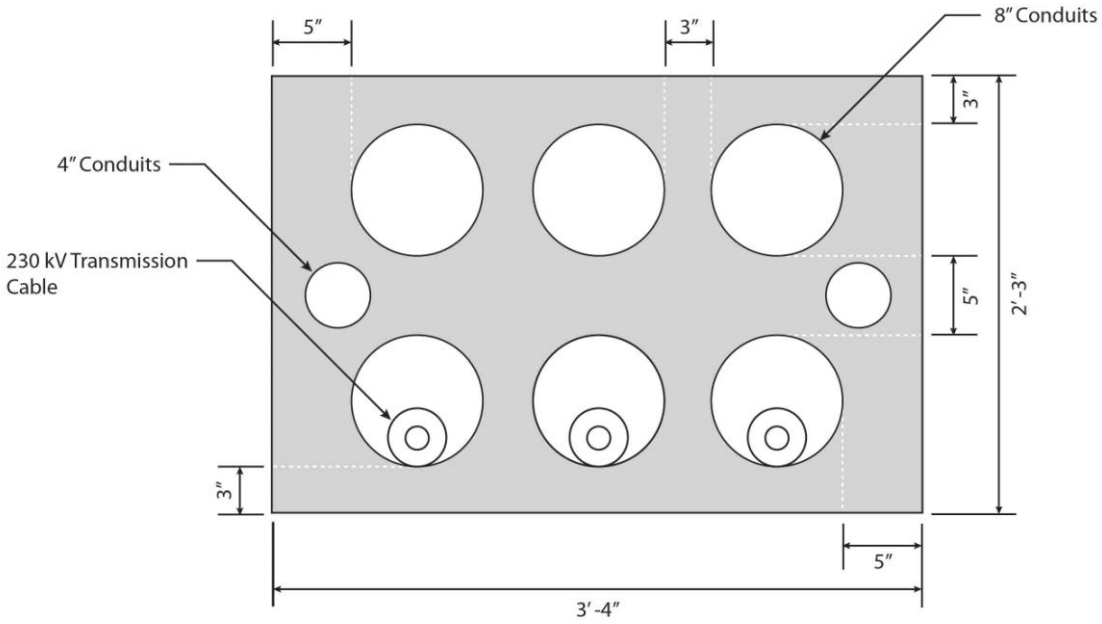


FIGURE 4.2.9-2. TRIANGULAR DUCT BANK CONFIGURATION

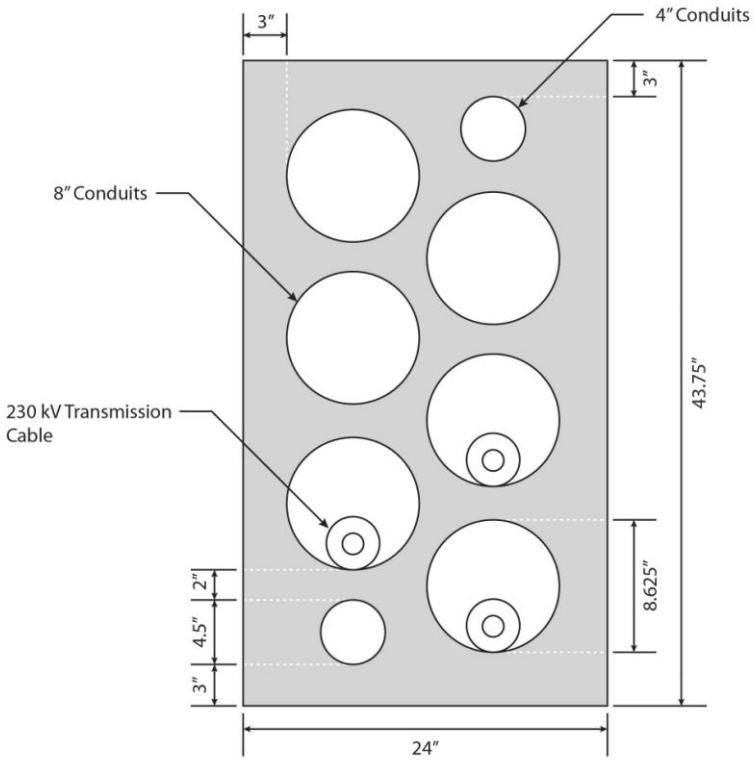


Figure 4.2.9-3 illustrates the calculated magnetic field levels for the average loading condition in relationship to the distance from the center of each duct bank configuration. As shown in Figure 4.2.9-3, the highest magnetic field levels would occur directly above the center of the duct bank; the horizontal duct bank configuration would produce a magnetic field of 26.08 mG and the triangular configuration would produce a magnetic field of 11.21 mG. As you move further from the center of the duct bank, the magnetic fields quickly diminish and the levels vary between the duct bank configuration. For example, at 25 feet from the center of the duct bank, the magnetic field level would be 2.33 mG for the horizontal configuration and 1.35 mG for the triangular configuration. At 50 feet from the center of the duct bank, the magnetic field level would be 0.62 mG for the horizontal configuration and 0.37 mG for the triangular configuration. At 75 feet from the center of the duct bank, the magnetic field level would be 0.28 mG for the horizontal configuration and 0.17 mG for the triangular configuration. At 100 feet from the center of the duct bank, the magnetic field level would be 0.16 mG for the horizontal configuration and 0.09 mG for the triangular configuration.

FIGURE 4.2.9-3. CALCULATED MAGNETIC FIELD FOR AVERAGE LOADING CONDITIONS (187 AMPS)

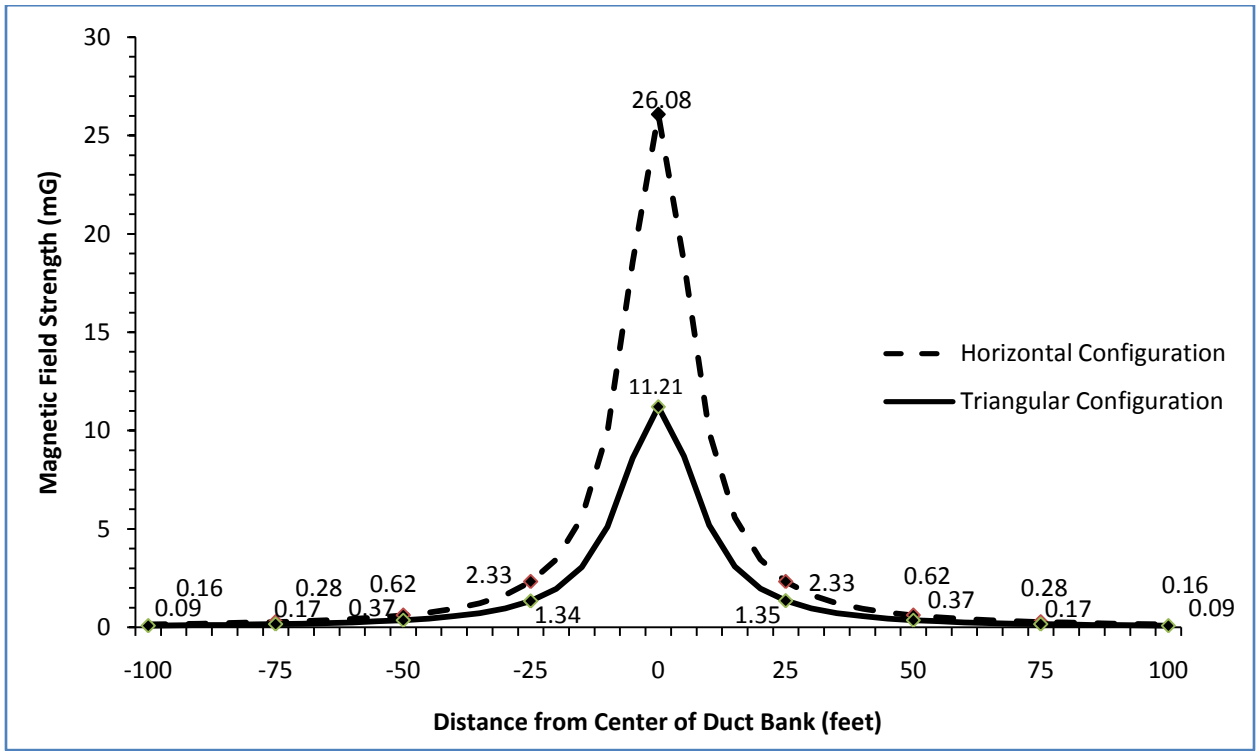
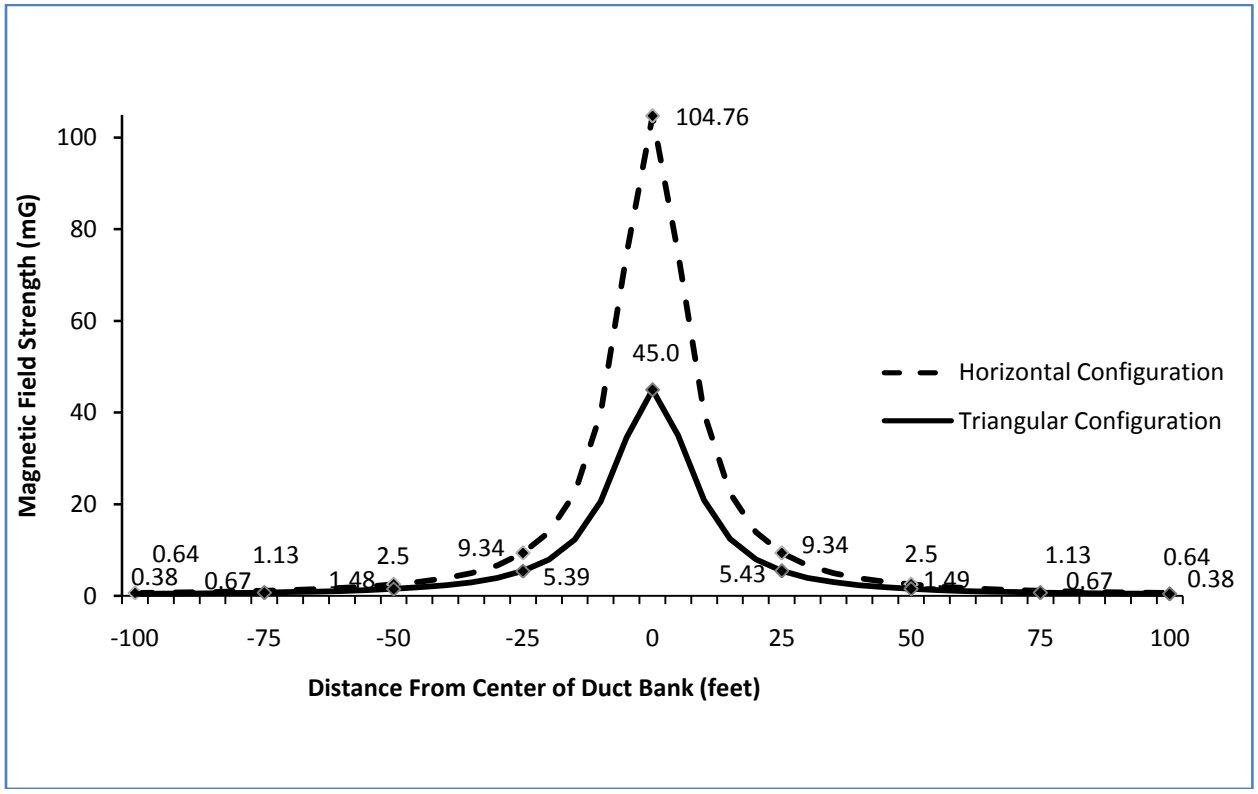


Figure 4.2.9-4 illustrates the calculated magnetic field levels for the 95 percentile loading conditions in relationship to the distance from the center of each duct bank configuration. As shown in Figure 4.2.9-4, the highest magnetic field level would occur directly over the duct bank—104.76 mG for the horizontal configuration and 45.00 mG for the triangular configuration. At 25 feet from the center of the duct bank, the horizontal configuration would have a magnetic field level of 9.34 mG; the triangular configuration would have a magnetic field level of 5.43 mG. At 50 feet from the center of the duct bank, the magnetic field level would be 2.50 mG for the horizontal configuration, and 1.49 mG for the triangular configuration. At 75 feet from the center of the duct bank, the magnetic field level would be 1.13 mG for the horizontal configuration and 0.67 mG for the triangular configuration. At 100 feet, the magnetic field level would be 0.64 mG for the horizontal configuration and 0.38 mG for the triangular configuration.

FIGURE 4.2.9-4. CALCULATED MAGNETIC FIELD FOR 95 PERCENTILE LOADING CONDITIONS (751 AMPS)



Reduction in Magnetic Effects

Several different methods can be used to manage the above-ground EMF values produced by underground transmission lines. The EMF values can be reduced by installing the cables closer together and by installing the cables in a triangular configuration compared to a horizontal configuration.

The proposed Project would utilize a triangular duct bank configuration (Figure 4.2.9-3) with conduits one-inch closer than the horizontal duct bank configuration (Figure 4.2.9-2). This would result in a magnetic field reduction of approximately 57 percent at the center of the duct bank at one meter the above ground, which is the location of the highest magnetic field level. In addition, the proposed cable would contain a metallic sheath, which contains the electric field.

Although not regulated by the CPUC, LADWP follows their guidelines of allocating a minimum of four percent of the total Project cost for implementing EMF reduction measures with a goal of achieving magnetic field reductions of at least 15 percent. The methods utilized for this project would exceed both the four percent allocation and the goal for a 15 percent reduction in magnetic field levels.

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CHAPTER 5: OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS OF THE PROPOSED PROJECT

This section is prepared in accordance with Section 15126.2(b) of the California Environmental Quality Act (CEQA) Guidelines, which requires the discussion of any significant environmental effects that cannot be avoided if a project is implemented. These include impacts that can be mitigated, but cannot be reduced to a less than significant level. An analysis of environmental impacts caused by the proposed Project has been conducted and is contained in Chapter 4 of this EIR. According to the environmental impact analysis, the proposed Project would result in significant unavoidable adverse impacts during construction related to noise generation. More specifically, and as codified at Chapter XI, Article 2, Section 112.05 of the Los Angeles Municipal Code, noise associated with equipment utilized to construct the proposed Project would exceed the threshold of 75 dBA at a distance of 50 feet from construction. A significant unavoidable adverse impact during construction would also occur related to traffic and transportation. Please refer to Chapter 4, Section 4.2.6 (Noise) and Section 4.2.7 (Traffic and Transportation) for detailed discussion regarding potential equipment to be utilized for construction of the proposed Project and their respective anticipated noise levels at a distance of 50 feet, and traffic and transportation impacts related to the construction of the proposed Project, respectively. No permanent significant impacts to noise and traffic would result from Project operation.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Public Resources Code section 21100(b)(2)(B) and section 15126.2(c) of the CEQA Guidelines require that an EIR analyze the extent to which the proposed project's primary and secondary effects would impact the environment and commit nonrenewable resources to uses that future generations would not be able to reverse. This section discusses the commitments of resources required by the proposed Project in general terms. All of these effects have been discussed in greater detail in previous sections of this EIR.

The proposed Project satisfies the Project objectives to enhance the reliability and operational flexibility of LADWP's existing Scattergood Transmission System; better utilize the energy produced from the Scattergood Generating Station; and comply with federally mandated standards. The proposed Project would be constructed within existing roadways, so no new land would be required for Project implementation and operation.

The proposed Project would have various environmental impacts as presented in Chapter 4 of this EIR. The only significant immitigable impacts identified are associated with the construction phase of the Project—specifically, noise and traffic impacts during Project construction. The impacts identified are not significant or irreversible over the long term as part of Project operation, nor would they result in permanent substantial changes in the environment.

5.3 GROWTH INDUCING IMPACTS

CEQA defines growth-inducing impacts as those impacts of a proposed project that "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this definition are projects which would remove obstacles to population growth" (CEQA Guidelines Section 15126.2(d)).

The proposed Project would enhance the reliability and operational flexibility of LADWP's electrical system. The Project would involve the construction of a new 230 kV underground transmission line and minor modifications to the Scattergood Generating Station and Olympic Receiving Station to allow a new transmission line to connect to the stations. The construction of a new underground transmission line would not induce population growth in the area because it would not provide additional electrical supply to the region. The proposed Project would not require the hiring of additional LADWP personnel to operate the new transmission line. The Project construction workers would be hired primarily from the existing labor pool in Southern California; therefore, a significant number of new workers, new services, infrastructure, or housing would not occur relative to Project construction and operation.

No significant growth-inducing impacts are foreseen from the proposed Project.

CHAPTER 6: COORDINATION AND CONSULTATION

6.1 INTRODUCTION

This chapter summarizes the City of Los Angeles Department of Water and Power's (LADWP) public and agency involvement and outreach activities related to the Scattergood-Olympic Transmission Line Project (SOTLP or Project), as well as satisfying the California Environmental Quality Act (CEQA) requirements for public scoping and agency consultation and coordination. CEQA Guidelines Section 15129 states that an "EIR [Environmental Impact Report] shall identify all federal, state, or local agencies, other organizations, and private individuals consulted in preparing the draft EIR." LADWP is the Lead Agency under CEQA for the proposed Project.

Consistent with CEQA, public participation and agency consultation for this Project have been accomplished through issuance of public notices, public scoping meetings, and formal and informal consultation with agencies, stakeholders, landowners, and Native American Tribes. The consultation and coordination process helped to determine the scope of the EIR and identify a range of alternatives and mitigation measures.

6.2 SCOPING PROCESS

Scoping is an early and open process for determining the scope of issues to be addressed in the Draft EIR, and identifying the range of actions, alternatives, and mitigation measures. The public, affected agencies, Native American Tribes, and other interested parties are invited to participate in the environmental review process. The following sections summarize the scoping process; details regarding the process are documented in the Scoping Report found in Appendix C.

6.2.1 NOTICE OF PREPARATION

In compliance with CEQA Guidelines Section 15082, a Notice of Preparation (NOP) of an EIR was prepared that described the proposed Project and location, environmental review process, the potential environmental effects, and contact information, along with announcing the times and locations of the public scoping meetings. On October 8, 2010, the NOP (State Clearinghouse [SCH] No. 2009091085) was filed with the SCH; the scoping review period started on October 12, 2010 and ended on November 12, 2010. A copy of the NOP was distributed via certified U.S. mail to:

- 25 agencies (city, county, State, and federal)
- Two Native American Tribes
- Six elected officials
- Seven community organizations

6.2.2 SCOPING MEETINGS

Two public scoping meetings in an open house format were conducted at the locations listed in Table 6-1. The purpose of the meetings was to inform the public about the Project; describe its purpose and need; provide information regarding the environmental review process; and gather public input regarding the scope and content of the EIR and the establishment of siting criteria for the proposed underground transmission line. Each attendee was asked to sign in and was given a packet of information including a Project fact sheet, study area map, and a comment form.

TABLE 6-1. PUBLIC SCOPING MEETING LOCATIONS

Date	Location	Number of people signed in
Tuesday, October 26, 2010	West Los Angeles Municipal Building 1645 West Corinth Avenue Los Angeles, CA	36
Thursday, November 4, 2010	Courtyard Marriot, Palos Verde Meeting Room 13480 Maxella Avenue Marina Del Rey, CA	34

A total of 70 people signed in at the two scoping meetings. Four people identified themselves as being affiliated with community groups, while two identified themselves as working with City Councilmembers. Attendees were encouraged to comment either by filling out a comment form or visiting one of the two interactive geographic information system (GIS) comment stations.

The public was also encouraged to comment by email, phone, or U.S. mail by November 12, 2010. The following contact information was listed on all Project materials, including official notifications:

- Email: Scattergood-Olympic@ladwp.com
- Call: Toll-Free (877) 735-8407
- Mail to: Scattergood-Olympic Transmission Line Project
  Los Angeles Department of Water and Power
  Attn: Julie Van Wagner, Environmental Project Manager
  111 North Hope Street, Room 1044
  Los Angeles, CA 90012

Project materials and contact information were made available through the Project-specific website at http://www.ladwp.com/Scattergood-Olympic.

Notification

The scoping meetings were announced in the NOP, at neighborhood council meetings, and on the Project-specific website (http://www.ladwp.com/Scattergood-Olympic), and advertised in local papers.

Newspaper Advertisements

The scoping meetings were advertised in 13 local newspapers listed below in Table 6-2. The advertisements encouraged the public to attend the meetings and included a brief Project description.

TABLE 6-2. NEWSPAPERS UTILIZED FOR ADVERTISEMENT OF THE 2010 SCOPING MEETINGS

Publication	Advertisement Date
The Argonaut	October 14
Brentwood News	November *
Canyon News	October 14
Culver City News	October 14
Daily Breeze	October 15
Los Angeles Times (legal notice)	October 12
Los Angeles Times (display ad)	October 15
Los Angeles Sentinel	October 14
La Opinion	October 15
Los Angeles Watts Times	October 14
Palisadian Post	October 14
Wave, Culver City edition	October 14
Wave (Inglewood/Hawthorne/Gardena/Lawndale)	October 14

*monthly publication

Agency and Elected Official Contacts

As indicated above, agencies and elected officials received a copy of the NOP for review and comment. The Project postcards were distributed to their constituents. Six Neighborhood Councils and two Council District Offices requested briefings, and members of LADWP attended the meetings (see Table 6-3).

TABLE 6-3. 2010 NEIGHBORHOOD COUNCIL & COUNCIL DISTRICT MEETINGS

Neighborhood Council/Council District	Date	Location
Mar Vista Community Council	September 14	Mar Vista Recreation Center 11430 Woodbine Street, Mar Vista
Venice Neighborhood Council	September 21	Westminster Elementary School Auditorium 1010 Abbott Kinney Boulevard, Venice
Neighborhood Council of Westchester – Playa del Rey	October 5	Westchester Municipal Bldg. Council Community Room 7166 W. Manchester Avenue, Westchester
Palms Neighborhood Council	October 6	Iman Cultural 3376 Motor Avenue, Palms
Del Rey Neighborhood Council	October 14	Courtyard by Marriot 13480 Maxella Avenue, Marina Del Rey
Westside Neighborhood Council	October 14	Western Pavilion 10800 W. Pico Boulevard, Room A
Los Angeles Council District 5	October 12	CD 5 District Office 822 South Robertson Boulevard Suite 102
Los Angeles Council District 11	September 20	CD 11 WLA District Office 1645 Corinth Avenue, Room 201

6.2.3 OUTREACH

Different modes were provided for the public and agencies to ask questions or leave comments regarding the Project. A toll-free hotline, email address, and website were established at the beginning of the scoping period.

Website

Information regarding the Scattergood Olympic Transmission Line Project is available at http://www.ladwp.com/Scattergood-Olympic. The NOP and all public review materials are available on the website. The website is updated throughout the environmental review period as information is made available.

Email Address

An email address was established for the Project (Scattergood-Olympic@ladwp.com) to provide another mode of receiving comments. All comments received via email were added to the Project record.

Toll-Free Hotline

A toll-free Project Hotline, (877) 735-8407, was provided as another means for the community to contact the Project team or request information.

6.2.4 SCOPING COMMENTS SUMMARY

A total of 54 comments were received during the scoping period from October 12, 2010 to November 12, 2010. A letter from the Los Angeles County Department of Beaches & Harbors dated November 30, 2010 was received after the scoping period ended, but has been included in this EIR. The comments came from various sources, as summarized in Table 6-4, and were regarding various topics, as summarized below.

TABLE 6-4. SOURCE OF SCOPING COMMENTS

Number of Comments	Source of Comment
48	Public
5	Agencies (including Native American Heritage Commission)
1	Organization (homeowners' association)

Project Need and Objectives

Some members of the public expressed concern verbally and in writing regarding the need for an additional underground line from the Scattergood Generating Station (SGS) to the Olympic Receiving Station, as well as skepticism about whether more energy is really needed in the area and whom it would benefit.

Alternatives

Many comments had specific advice regarding alternatives. Members of the public asked if the study area could be expanded to include Sepulveda Boulevard from Venice Boulevard to Westchester Parkway. One comment suggested routing the line east on Westchester Parkway (no homes and a wide street) or sending the transmission line east on Imperial Highway (a California State Highway). There was also concern that topographical maps need to be studied because of the steepness of hills in the area, including Manchester Avenue in Playa del Rey. Agency representatives requested that Sawtelle Boulevard, Sepulveda Boulevard, and Centinela Avenue be considered for the routing of the proposed 230 kV underground transmission line.

The Westwood South of Santa Monica Boulevard Homeowners Association (Association) suggested that a route be considered that could provide the neighborhood with an opportunity to have existing power lines that are above ground placed underground. The Association suggested that any new projects involving transit corridors remain west of the area and noted that the Westwood South of Santa Monica Boulevard area is adjacent to a number of large traffic-generating centers (UCLA, Westwood Village, Century City) and claims the neighborhood streets can't absorb any additional impacts. The Association also stated that alternatives near Pico/Olympic should be avoided because an environmental process is already underway in that area and it would be inappropriate to site a line in that area until the first study is concluded.

The Los Angeles County Department of Beaches & Harbors suggested that siting of the new transmission line along the bluff that is located between the beach and Vista del Mar would provide an opportunity to improve the slope in the area.

Air Quality

The South Coast Air Quality Management District (SCAQMD) requested that copies of all supporting technical reports be sent for review upon their completion. The SCAQMD emphasized that documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files should be included, and made particular mention of original emission calculation spreadsheets and modeling files.

Cultural Resources

The Native American Heritage Commission (NAHC) commented that Native American Cultural Resources were identified within one-half mile of the Area of Potential Affect and provided a list of Native American contacts in the area.

Electric and Magnetic Fields

Significant concern was raised over electric and magnetic fields (EMF). Several comments were made asking to avoid narrow/residential streets in order to maintain a setback of 37.5 feet from the source of EMF. Some commenters asked that shielding be considered in areas where the line could be closer than 37.5 feet to residences. Members of the public also asked that the EIR include the health effects of EMF on humans.

Audible Noise and Radio Interference

Members of the public had questions about the noise levels produced by the operation of a transmission line. One commenter asked about the impacts of the line on radio, television, and communication circuits (mobile or stationary).

Property Values

Property owners in the area are concerned about decreased property values.

Public Health and Safety

Many commenters expressed a great deal of concern regarding the existence of a 30-inch gas pipeline under Inglewood Boulevard and the potential for an explosion similar to the one in San Bruno, California. Several stakeholders asked that the EIR include a complete list of all pipelines (gas, petroleum, etc.) that are located within the Project area.

Comments were received concerning construction and long-term impacts to children.

One commenter asked that the following issues be addressed in the EIR regarding safety: animal contact area concerns, residential water and gas pipe shocking concerns, power circuit resonance conditions, impacts of new gas and water line installations in power line rights-of-way, induced voltages onto fences and light poles, and tingling sensations at swimming pools and outdoor water faucets.

Public Services and Utilities

Many commenters expressed their concerns about potential impacts to existing subsurface utility systems, such as sewer, oil, and electric lines.

Traffic

Residents in the area were concerned about potential traffic impacts during construction. The Los Angeles Department of Beaches and Harbors was especially concerned about construction traffic in the marina and beach areas during the peak season.

Hazardous Materials/Soils

The Department of Toxic Substances Control was concerned about soil contamination and requested that required investigation and/or remediation be identified. One member of the public had a number of questions regarding the heat of the soil as a result of the transmission line and the thermal resistivity of the backfill.

Cumulative Impacts

The public was concerned about the cumulative effects of several projects in their area.

6.3 INFORMATIONAL PUBLIC MEETINGS

Two informational public meetings were conducted in February 2011. The purpose of the meetings was to present the public information about the preliminary alternatives; describe the purpose and need of the Project; provide information regarding the environmental review process; and gather public input regarding the preliminary alternatives. The informational public meetings were held from 6:30 p.m. to 8:30 p.m. on the dates and locations listed in Table 6-5.

TABLE 6-5. INFORMATIONAL PUBLIC MEETINGS

Date	Location	Number of People Signed In
February 23, 2011	West Los Angeles Municipal Building 1645 West Corinth Avenue Los Angeles, CA 90025	32
February 24, 2011	Courtyard Marriot, Palos Verde Meeting Room 13480 Maxella Avenue Marina Del Rey, CA 90292	24

The meetings consisted of a combination of open house and formal presentation format.

Display boards and a large Project map were set up at stations around the room. Project team members were available to answer questions about the displays and other Project-related topics. Each attendee was asked to sign in and encouraged to fill out a comment form before leaving the meeting.

A video presentation discussing the proposed Project was shown at 7 p.m. A question and answer session was held after the presentation. At the conclusion of the question and answer session, the open house continued and staff members were available to answer questions and gather input.

6.3.1 NOTIFICATION

Project Postcards

The February 2011 meetings were announced by a postcard mailing to over 225 people, including agency and community representatives. The mailing list was updated following the scoping meetings and as a result of emails and letters received during the scoping period to include any stakeholders who wished to receive future Project information.

Project Email

An email announcing the informational meetings was sent to over 110 stakeholder email addresses, including agency and community representatives. The email included an attachment of the Project postcard. The email list was developed using the sign-in sheets and comments from the scoping meetings.

Newspaper Advertisements

The informational public meetings were announced in twelve local newspapers. The advertisements provided a brief Project description and meeting locations, times, and dates, and encouraged the public to attend the meetings. A Spanish translation of the advertisement was published in La Opinion newspaper. From mid-February through February 24, 2011, a website (City Watch) was also utilized for advertisement.

TABLE 6-6. NEWSPAPERS UTILIZED FOR ADVERTISEMENT OF THE 2011 INFORMATIONAL PUBLIC MEETINGS

Newspaper	Publication Date
The Argonaut	February 17
Canyon News	February 20
Culver City News	February 17
Daily Breeze	February 18
Los Angeles Times	February 18
Los Angeles Sentinel	February 17
La Opinion	February 18
Palisadian Post	February 17
Wave – Culver City	February 17
LA Watts Times	February 17
Wave- West Edition	February 17
Culver City News	February 17

Other Notification

In advance of the informational public meetings, information was presented to neighborhood councils and City Council District offices in the Project area regarding the status of the Project, preliminary Project alternatives, and upcoming opportunities for input. LADWP attended Neighborhood Council meetings and City Hall meetings to provide short briefings to the communities and Council members and let attendees know about the upcoming informational public meetings. Briefings were given to the Mar Vista Community Council, Los Angeles Council Districts 5 and 11, and the Westside Neighborhood Council.

The Project website (http://www.ladwp.com/Scattergood-Olympic) was also updated with the informational public meeting details.

6.3.2 SUMMARY OF COMMENTS RECEIVED AFTER SCOPING

This section summarizes the comments received at the informational public meetings. A total of six written comments were received; four of the comments were submitted at the meeting, one was received via email, and one was received via U.S. mail. Verbal questions and comments were provided by the public during the question and answer portion of the meeting, which followed the formal presentation; responses to questions were provided. The question and answer session was recorded to help ensure accuracy of input provided during the question and answer session of each meeting.

Alternatives

The majority of the comments received were in reference to the alternatives presented at the meeting. Several comments referenced choosing alternative link E (Westchester Parkway) over alternative link F (Manchester Avenue) due to fewer traffic impacts, less proximity to residential areas, fewer underground issues, and greater ease of maintenance.

Questions were asked about the advantages and disadvantages of using Manchester Avenue near Pershing as an alternative. A commenter asked why Westchester Parkway wouldn't be chosen over Manchester Avenue due to fewer property, construction, and traffic impacts.

There were objections from one commenter regarding alternative link X (Venice Boulevard, between Centinela Avenue and Sawtelle Boulevard) and alternative link R (Washington Place, between Centinela Avenue and Sawtelle Boulevard). Reasons for opposing those alternatives included that they are both east-west streets in the Mar Vista area. The commenter stated that the line should head north-south as much as possible. Reasoning for a north-south line included a statement that the cost would be higher on an east-west leg and that it would create more right angles as the line heads north. Opposition to

alternative link X also included concerns about paralleling a 36-inch diameter gas pipeline in the area, and because Venice Boulevard is a California State Highway. Another concern provided regarding alternative link X was that this particular alignment would pass in front of a U.S. Post Office, City Branch Library, and Los Angeles Fire Station.

Several comments expressed thanks to LADWP for not developing alternatives on Inglewood Boulevard, given the existing underground gas pipeline along this roadway.

Questions were asked about the location of the alternatives in relation to Sepulveda Boulevard, Centinela Avenue, Sawtelle Boulevard, and Culver Boulevard.

Comments were also received regarding the location of alternatives relative to existing electric lines. For example, one commenter felt it would make more sense to separate the new line from existing lines in case of a catastrophic event.

Questions were also asked regarding how the alternatives might impact the Ballona Wetlands Area. A commenter wanted to know if mitigation, such as undergrounding the existing transmission lines in the wetland area, could be done to avoid impacts to birds.

Reducing impacts to residential areas was supported in more than one comment.

Construction

Questions were asked about the construction process, when construction of the Project would begin, and how long construction would take.

Questions also were asked about the need for a splice in the transmission line.

Electric and Magnetic Fields

Concerns were expressed and questions were asked about EMF and ways to mitigate the fields, such as through shielding.

In addition, questions were asked about studies that have been performed on EMF and where the public can read about the studies and findings.

Public Health and Safety

Comments were received regarding concerns about the transmission line paralleling or crossing an existing 36-inch diameter gas pipeline and the potential for a gas line explosion.

Questions were asked about the kinds of emissions associated with the transmission lines and their impact on the surrounding area. A commenter was also concerned about the public's health, and issues such as cancer.

Biological Resources

Representatives of the Department of Beaches and Harbors attended the meetings and suggested LADWP coordinate with the California State Coastal Conservancy who, in conjunction with the Department of Fish and Game and State Lands Commission, is working on a restoration project in the Ballona Wetlands. They would like to ensure mitigation measures adequately address the potential impacts to the Ballona Creek Channel's integrity and use, wherever the proposed alignment ultimately crosses the channel.

Comments were received suggesting LADWP underground the existing transmission lines in the Ballona Wetland area as a part of this Project as mitigation for the SGS once-through cooling system impacts to

animals and marine life. The commenter reasoned that this Project is related to impacts from SGS because it would extend the life of SGS.

Public Services and Utilities

Questions were asked about whether coal was being used to generate the electricity for this transmission line. A commenter felt Los Angeles should get away from using coal to generate electricity.

Traffic

Comments were received advocating reduced impacts to traffic during Project construction.

Other

Comments were received suggesting that the implications of global warming and potential threat of tsunamis should be considered in engineering design.

Questions were asked about the public notification process for an EIR, and concern was expressed about whether the public was aware of the Project.

Meeting attendees also asked about the Project schedule, and when the public would have opportunities to review the EIR.

Questions were asked regarding what cost benefits could be realized by putting the new line along an existing line's location.

Finally, some attendees asked about how often the lines need repair and how LADWP maintains the lines.

6.4 AGENCY CONTACTS

In compliance with CEQA Guidelines Section 15129, Table 6-7 below identifies federal, State, or local agencies, other organizations, and private individuals contacted in preparation of this Draft EIR.

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TABLE 6-7. AGENCY CONTACT SUMMARY

AGENCY	DEPARTMENT	LAST NAME	FIRST NAME	TITLE
Federal Agencies				
U.S. Fish and Wildlife Service	Ventura Office	Bartel	Jim	Field Supervisor
State Agencies				
California Coastal Commission	South Coast Area	Padilla	Al	Coastal Program Analyst
California Department of Transportation	District 7	Alvarez	Elmer	IGR/CEQA Coordinator
California Department of Fish and Game	South Coast Region	Lawhead	David	Environmental Scientist
Native American Heritage Commission		Singleton	Dave	Associate Governmental Program Analyst
County Agencies				
Los Angeles County	Department of Beaches & Harbors	King	Kathline	Planning Specialist
County of Los Angeles	Department of Regional Planning- Systems Analysis Section	Carreon	Angelique	
City/Local Agencies				
City of El Segundo	Planning Department	Christensen	Kimberly	Planning Manager
City of Manhattan Beach	Planning Department	Jester	Laurie	Planner
Culver City	Planning Department	Gorham	Thomas	Planning Manager
Culver City	Public Works Department	Herbertson	Charles	Public Work Director
City of Santa Monica	Planning Department	Foley	Paul	Principal Planner
City of Los Angeles	Planning Department	Sun	Eva	Director of Systems
LA City/County Native American Indian Commission	Community and Senior Services	Andrade	Ron	Director
Native American Tribes				
Gabrieliño/Tongva San Gabriel Band of Mission Indians	Tribal Chairman's Office	Morales	Anthony	Chairperson
Gabrieliño/Tongva Tribe	Councilwoman's Office	Candelaria	Linda	Councilwoman
Gabrieliño/Tongva Tribe	Councilman's Office	Acuna	Bernie	Councilman
Gabrieliño/Tongva Nation	Chairperson's Office	Dunlap	Sam	Chairperson
Tongva Ancestral Territorial Tribal Nation	Tribal Administration	Rosas	John Tommy	Tribal Administration
Gabrieliño Band of Mission Indians	Chairperson's Office	Salas	Andrew	Chairperson
Gabrieliño/Tongva Indians of California Tribal Council	Tribal Chair/Cultural Resources Office	Dorame	Robert	Tribal Chair/Cultural Resources
Ti'At Society/Inter-Tribal Counsel of Pimu	Chairwoman's Office	Alvirte	Cindy	Chairwoman-Manisar

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Elected Official Contacts

The elected officials listed in Table 6-8 below were sent a certified copy of the NOP for review and comment. During the scoping period, the Council offices were briefed about the Project.

TABLE 6-8. ELECTED OFFICIAL CONTACTS

Organization	First Name	Last Name	Title
City Council District 5	Paul	Koretz	Councilman
City Council District 11	Bill	Rosendahl	Councilman
Assemblyman, District 53	Ted W.	Lieu	Assemblyman
Assemblyman, District 51	Steven	Bradford	Assemblyman
Assemblywoman, District 47	Karen	Bass	Assemblywoman
Senator, District 28	Jenny	Oropeza	Senator

6.5 FORMAL CONSULTATION

Native American Coordination

The NOP for the Project was sent to two Native American Tribes in October 2010. During the scoping period, the NAHC commented that Native American Cultural Resources were identified within one-half mile of the Area of Potential Affect (APE), but not in the APE. As the State "trustee agency" pursuant to Public Resources Code 21070 for the protection and preservation of California's Native American Cultural Resources, the NAHC recommended early consultation with Native American Tribes in the area to avoid unanticipated discoveries once the Project is underway. The lead agency for the Project is required to assess whether the Project would have an adverse impact on these resources, and if so, to mitigate that effect.

The NAHC performed a Sacred Lands File search in the NAHC Sacred Lands File Inventory, established by the Legislature pursuant to Public Resources Code 5097.94(a). The NAHC recommended using consulting parties from the Tribes that may have knowledge of the religious and cultural significance of the historic properties in the Project area (e.g., APE). A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource. Also, the NAHC recommended that a Native American monitor or Native American culturally knowledgeable person be employed whenever a professional archaeologist is employed during the initial study and in other phases of the environmental planning process.

On July 15, 2011, the California NAHC was contacted regarding Native American groups that might have historic ties to, and interest in, the proposed Project area, as well as a Sacred Lands File Search. In response, the NAHC stated that their files indicate that Native American cultural resources are identified in the Project area; however, the locations of the resources were not provided. The NAHC also provided a list of nine Native American Contacts to be informed of the Project. On August 8, 2011, letters providing information about the Project were sent to the following contacts:

- Mr. Ron Andrade, LA City/County Native American Indian Commission Director
- Ms. Cindi Alvitre, Ti'At Society/Inter-Tribal of Pimu Chairwoman-Manisar
- Mr. John Tommy Rosas, Tongva Ancestral Territorial Tribal Nation Administrator
- Mr. Anthony Morales, Gabrieliño/Tongva San Gabriel Band of Mission Indians Chairperson
- Mr. Sam Dunlap, Gabrieliño/Tongva Nation Chairperson
- Mr. Robert Dorame, Gabrieliño/Tongva Indians of California Tribal Council, Tribal Chair/Cultural Resources
- Mr. Bernie Acuna, Gabrieliño/Tongva Tribal Councilman
- Ms. Linda Candelaria, Gabrieliño/Tongva Tribal Councilwoman

- Mr. Andrew Salas, Gabrieliño Band of Mission Indians Chairperson

On September 2, 2011, a letter was received from Ms. Christina Swindall Martinez, secretary for the Gabrieliño Band of Mission Indians. Ms. Martinez requested that one of their certified Native American monitors be on site during all ground-disturbing activities.

6.6 PUBLIC REVIEW OF DRAFT EIR

6.6.1 NOTICE OF COMPLETION

Per CEQA Guidelines Section 15085, the Notice of Completion is a document that must be filed with the State Clearinghouse, Office of Planning and Research, when the Draft EIR is published. The CEQA Lead Agency shall also provide the public a Notice of Availability (NOA) of the Draft EIR (CEQA Guidelines Section 15087). The NOA will also include details for any scheduled public meetings or hearings (date, time, and place); a list of significant environmental effects; and whether the Project site is listed under Section 65962.5 of the Government Code (hazardous waste facilities). Pursuant to CEQA Guidelines Section 15105, the public review period for a Draft EIR submitted to the SCH shall be no less than 45 days nor should it be longer than 60 days except under unusual circumstances.

6.6.2 PUBLIC REVIEW

In accordance with CEQA requirements, this Draft EIR will be circulated for public and agency review and comment for a 45-day period. During the review period, two public meetings will be held in the Project vicinity.

Written comments will be addressed in the Final EIR. Comments will be accepted at the public meetings and by email at Scattergood-Olympic@ladwp.com, and by writing to Scattergood-Olympic Transmission Line Project, Los Angeles Department of Water and Power, Attn: Julie Van Wagner, Environmental Project Manager, 111 North Hope Street, Room 1044, Los Angeles, CA 90012. In addition, oral comments received at the public meeting will be summarized and responded to in the Final EIR.

Draft EIR Notification

An NOA of this Draft EIR was mailed to the agencies, elected officials, Native American Tribes, and interested individuals and organizations on the Project mailing list. A postcard announced the Draft EIR public meeting dates, times, and locations. It was mailed to residents and businesses adjacent to the proposed Project. The Project website was updated with an electronic copy of the Draft EIR and appendices. Newspaper advertisements also announced the public meetings.

Document Repository Sites

CEQA documents prepared as part of the proposed Project, including this Draft EIR and appendices, will be made available at the public repository sites listed in Table 6-9 and on the Project website (http://www.ladwp.com/Scattergood-Olympic).

TABLE 6-9. DOCUMENT REPOSITORY SITES

Repository Site	Address
Los Angeles Department of Water and Power	111 N. Hope Street, Room 1044, Los Angeles CA 90012
Los Angeles Public Library, West Los Angeles Regional Branch	11360 Santa Monica Boulevard, Los Angeles CA 90025
Los Angeles Public Library, Mar Vista Branch	12006 Venice Boulevard, Los Angeles CA 90066
Los Angeles Public Library, Westchester-Loyola Village Branch	7114 W. Manchester Avenue, Los Angeles CA 90045
Los Angeles Public Library, Playa Vista Branch	6400 Playa Vista Drive, Los Angeles, CA 90094
El Segundo Public Library	111 W. Mariposa Avenue, El Segundo CA 90245

6.7 ADDITIONAL STEPS IN THE ENVIRONMENTAL REVIEW

Following consideration of the comments received during this Draft EIR comment period, a Final EIR will be prepared and circulated per CEQA requirements, and will include responses to all comments. The Final EIR, and Project consideration by the Board of Water and Power Commissioners, is expected in summer 2012.

6.8 LIST OF PREPARERS

A list of persons responsible for the preparation of various sections of the EIR or preparation of significant background materials, or who participated to a significant degree in preparing the EIR, is presented below.

LADWP—Lead Agency

- Charles Holloway, Manager of Environmental Planning & Assessment
- Julie Van Wagner, Environmental Project Manager
- Vincent Curci, Manager of Underground Transmission Engineering
- Kishan Kasondra, Underground Transmission Project Manager
- Jason Klintong, Underground Transmission Engineering

Consultants responsible for EIR project management, document production, and technical analysis:

Name	Participation
POWER Engineers, Inc.	
Court Morgan	Project Manager
Karen Cadavona	Project Coordinator; Project Description; Hazards, Health, and Safety; Traffic and Transportation; EMF
Allison Carver	Geology and Soils; Water Quality and Hydrology
Dan Woodward	Paleontology
Gini Austerman	Cultural Resources
Kip Prentice	EMF Management Plan and Analysis
Kurt Bell	EMF Management Plan and Analysis
Rob Schaerer	Noise
Saadia Byram	Technical Editing and Production
Sarice Friedman	Hazards, Health, and Safety
Stephanie Bennett	Public Involvement, Strategic Communication, Facilitation, Mediation, Script and Newsletter Writing
Thomas Herzog	Biological Resources
Timothy Hazekamp	GIS
Ryan Otto	Graphics
Scientific Resources Associated	
Valorie Thompson	Air Quality/Greenhouse Gas Emission
KOA Corporation	
Brian Marchetti	Traffic and Transportation

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CHAPTER 7: REFERENCES

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