Policy 5.4 Architectural and Design Excellence: The City shall actively promote architectural and design excellence in buildings, open space and urban design and shall discourage poor quality development.

Policy 5.5 – Architectural and Design Excellence: The City shall actively promote architectural and design excellence in buildings, open space, and urban design and shall discourage poor-quality development.

Policy 5.7 – Enhanced Environment: Development should be shaped to improve the environment for the public; it should support the distinctiveness of the locality and region as well as the special characteristics of the existing fabric of the site's immediate surroundings.

Policy 5.9 – Contextual and Compatible Design: Urban design programs shall ensure that new development shall respect Pasadena's heritage by requiring that new development respond to its context and be compatible with the traditions and character of Pasadena and shall promote orderly development that is compatible with its surrounding scale and that protects the privacy and access to light and air of surrounding properties.

Policy 5.10 – Spatial Attributes: Promote development that creates and enhances positive spatial attributes of major public streets, open spaces, cityscape and mountain sightlines, and important "gateways" into the city.

Objective 6 – Historic Preservation: Promote preservation of historically and architecturally significant buildings and revitalization of traditional neighborhoods and commercial areas.

Objective 9 – Open Space Preservation and Acquisition: Preserve and acquire open space in Pasadena in order to enhance the quality of Pasadena life.

Pasadena Citywide Design Principles

(Attached as part of the City of Pasadena General Plan Land Use Element)

These Principles are a guide to development throughout the community and are intended to achieve the following:

- Buildings and landscapes particular to Pasadena – designs that complement their settings and enhance the community's unique character and special qualities.
- Development projects that contribute to an identifiable and coherent city form – a place that is both visually appealing and comfortable to use.
- Creative architectural solutions that acknowledge the surrounding context without direct mimicry of historical styles.

The principles are written to promote desirable qualities, and they should establish a dialogue among designers, developers, and the local community. They are applicable to all development projects subject to design review and may be supplemented by more detailed design guidelines for a particular project or a specified area within the City.

City of Pasadena General Plan Scenic Highways Element

Goal: Provision of aesthetic visual experiences for travelers of the City's street system.

Objectives:

- Preservation of the aesthetic qualities of designated scenic corridors.
- Development and application of appropriate standards to regulate the quality of development within designated Scenic corridors.
- Coordination of scenic highways planning and implementation with San Gabriel Valley cities. Los Angeles County and State of California.
- Integration of scenic corridors into City's streets concept and urban design programs.

City of Pasadena Design Guidelines/Design Commission Review

The Design Commission reviews exterior alterations, new construction, and seismic retrofitting to all buildings, including historic buildings within special areas of the City, in accordance with design guidelines adapted for 13 areas of the City.

A.1.3 City of Pasadena Zoning Code Article 4

17.40.080 – Outdoor Lighting

Exterior lighting on private property shall comply with the following requirements. Parking lot lighting shall comply with Section 17.46.220 (Outdoor Parking Area Lighting).

- Lighting shall be energy-efficient, and shielded. Lighting shall be energy-efficient, and shielded or recessed so that direct glare and reflections are confined to the maximum extent feasible within the boundaries of the site, and shall be directed downward and away from adjoining properties and public rights-of-way. No lighting on private property shall produce an illumination level greater than one footcandle on any property within a residential zoning district except on the site of the light source.
- No lights shall blink, flash, or be of high intensity or brightness. No permanently installed lighting shall blink, flash, or be of unusually high intensity or brightness, as determined by the Zoning Administrator.
- Lighting shall be appropriate in scale, intensity, and height. All lighting fixtures shall be appropriate in scale, intensity, and height to the use they are serving.
- Outdoor sports court lighting. Lighting for an outdoor sports court or field within 300 feet of a residential zoning district shall require Minor Conditional Use Permit approval.

17.44.060 - Landscape Location Requirements

Nonresidential projects. The total area of each nonresidential project not devoted to lot coverage and paving shall be landscaped, irrigated, and maintained in compliance with the requirements of this Chapter.

17.44.070 - Landscape Standards

Landscape areas and materials for commercial, industrial, hillside, and multi-family projects shall be designed, installed, and properly maintained in compliance with the following. This Section shall not apply to the RS and RM-12 zoning districts.

A.1.4 La Canada Flintridge Municipal Code

La Canada Flintridge Municipal Code, Title 11 Zoning Chapter 11.47 Design Review

Any project involving city property is subject to design review.

A.2 Air Quality

A number of statutes, regulations, plans, and policies have been adopted to address air quality issues. The project site and vicinity are subject to air quality regulations developed and implemented at the federal, state, and local levels. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of the Federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile source and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

A.2.1 Federal Guidelines

The CAA was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments in 1990. The CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The CAA also mandates that the state submit and implement a State Implementation Plan (SIP) for areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 Amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA that are most applicable to the project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

Title I requirements are implemented for the purpose of attaining NAAQS for the following criteria pollutants: (1) ozone; (2) nitrogen oxides; (3) sulfur dioxide; (4) particulate matter (PM_{10} and $PM_{2.5}$); (5) carbon monoxide; and (6) lead (Pb). The NAAQS were amended in July 1997 to include the 8-hour standard for O_3 and a NAAQS for $PM_{2.5}$. Table 1 on pages 29 and 30 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in September 2006 to include an established methodology for calculating $PM_{2.5}$ as well as revoking the annual PM_{10} threshold.

The project area, which is in the South Coast Air Basin, has been designated as a non-attainment area as the area does not meet NAAQS for certain pollutants regulated under the CAA. The Basin fails to meet national standards for O_3, PM_{10}, $PM_{2.5,}$ and CO, and therefore is considered a Federal "non-attainment" area for these pollutants. Although the Basin has technically met the CO attainment standards since 2002, the USEPA has not yet approved the SCAQMD's request for re-designation and is therefore still classified as "non-attainment". The CAA sets certain deadlines for meeting the NAAQS within the Basin including: (1) 1-hour O_3 by the year 2010; (2) 8-hour O_3 by the year 2021; (3) PM_{10} by the year 2006; and (4) $PM_{2.5}$ by the year 2015. Nonattainment designations are categorized into seven levels of severity: (1) basic, (2) marginal, (3) moderate, (4) serious, (5) severe-15 and severe-17,[1] and (7) extreme. Table 6 on page 31 provides the attainment status for each criteria pollutant.

[1] The "-15" and "-17" designations reflect the number of years within which attainment must be achieved.

Table 1

Ambient Air Quality Standards [a]

Pollutant	Averaging Time	California Standards [a]		Federal Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
Ozone	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—[j]		
	8 Hour	0.070 ppm (137 µg/m^3)		0.08 ppm (157 µg/m^3) [h]	Same as Primary Standard	Ultraviolet Photometry
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—[j]		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard		35[j] µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3		
Carbon Monoxide	8 Hour	9.0 ppm (10mg/m^3)	Non-Dispersive Infrared Photometry NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide	Annual Arithmetic Mean	—	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.25 ppm (470 µg/m^3)		—		
Sulfur Dioxide	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	—	Spectrophotometry (Pararosaniline Method)
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	—	
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1 Hour	0.25 ppm (655 µg/m^3)		—	—	—
Lead	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	—
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			

Pollutant	Averaging Time	California Standards [a]		Federal Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride [i]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

[a] *California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM_{10}, $PM_{2.5}$, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.*

[b] *National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.*

[c] *Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.*

[d] *Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.*

[e] *National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.*

[f] *National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.*

[g] *Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.*

[h] *New federal 8-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18,1997. Contact U.S. EPA for further clarification and current federal policies.*

[i] *The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

[j] *This table includes updated PM_{10}, $PM_{2.5}$, and O_3 standards that were adopted in September of 2006.*

Source: California Air Resources Board, November 10, 2006

Table 6

South Coast Air Basin Attainment Status

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	N/A [a]	Non-attainment
Ozone (8-hour standard)	Severe-17	N/A
Carbon monoxide	Serious [b]	Attainment [c]
Nitrogen dioxide	Attainment [c]	Attainment [c]
Sulfur dioxide	Attainment [c]	Attainment [c]
PM_{10} (24-hour standard)	Serious	Non-attainment
PM_{10} (annual standard)	N/A [d]	Non-attainment
$PM_{2.5}$	Serious	Non-attainment
Lead	Attainment [c]	Attainment [c]
Sulfates	N/A	Attainment [c]

N/A = not applicable

[a] *The NAAQS for 1-hr ozone was revoked on June 15, 2005 for all areas except Early Action Compact (EAC) areas.*

[b] *The Basin has technically met the CO standards for attainment since 2002, but the official status has not been reclassified by the USEPA.*

[c] *An air basin is designated as being in attainment for a pollutant if the standard for that pollutant was not violated at any site in that air basin during a three year period.*

[d] *The NAAQS for annual PM_{10} was revoked on September, 21 2006.*

Source: USEPA Region 9 and California Air Resources Board, 2006.

Title II of the CAA pertains to mobile sources, such as cars, trucks, buses, and planes. Title II regulations have resulted in tailpipe emission standards for mobile sources, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially and initiatives pertaining to reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps have been implemented by the USEPA to regulate mobile air emission sources.

A.2.2 California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and has set standards for other pollutants recognized by the State, such as sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. In general, the California standards are more health protective than NAAQS.

While air quality in the Basin has improved, the Basin requires continued diligence to meet air quality standards. The Basin fails to meet CAAQS for O_3, PM_{10}, $PM_{2.5,}$ and CO, and therefore, is considered a non-attainment area for these pollutants. The California Air Resources Board (CARB) requires regions that do not meet the CAAQS to submit clean air plans that describe attainment initiatives for certain pollutants. The Basin currently meets the CAAQS for sulfates, hydrogen sulfide and vinyl chloride. Table 1 on pages 29 and 30 shows the CAAQS currently in

effect for each criteria pollutant. **Error! Reference source not found.** on page 31 lists the state attainment status for each of the pollutants.

A.2.3 South Coast Air Quality Management District (SCAQMD)

The SCAQMD has jurisdiction over an area of 10,743 square miles, consisting of all of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of the SCAQMD's jurisdiction and covers an area of 6,745 square miles.

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources; control programs for area sources and indirect sources; a SCAQMD permitting system designed to allow no net increase in emissions from any new or modified (i.e., previously permitted) emission sources; transportation control measures; sufficient control strategies to achieve a five percent or more annual reduction in emissions (or 15 percent or more in a 3-year period) for Reactive Organic Compounds (ROC), NO_X, CO, and PM_{10}; and compliance demonstration by established recordkeeping and reporting protocols.

The SCAQMD adopted a comprehensive AQMP update in August 2003.[2] The 2003 AQMP for the Basin outlines the air pollution control measures needed to meet Federal health-based standards for O_3 (1-hour standard) by 2010 and PM_{10} by 2006. It also demonstrates how the Federal standard for CO, achieved for the first time at the end of 2002, will be maintained.[3] This revision to the AQMP also addresses several State and Federal planning requirements and incorporates substantial new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological data, and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone SIP for the South Coast Air Basin. Lastly, the 2003 AQMP takes a preliminary look at what will be needed to achieve new and more stringent health standards for ozone and $PM_{2.5}$.

In adopting the AQMP, the SCAQMD: (1) committed to analyzing 12 additional long-term control measures, such as requiring the electrification of all cranes at ports; (2) set a target for distributing needed long-term emission reductions between AQMD, CARB and USEPA; (3) assigned emission reductions to the USEPA,[4] and (4) forwarded to CARB and USEPA a list of more than 30 specific measures for consideration to further reduce emissions from on- and off-road mobile sources and consumer products. The AQMP identifies 26 air pollution control measures to be adopted by the SCAQMD to further reduce emissions from businesses and industry. It also identifies 22 measures to be adopted by CARB and the USEPA to further reduce pollution from cars, trucks, construction equipment, aircraft, marine vessels and consumer products.

The SCAQMD also adopts rules to implement portions of the AQMP. Several of these rules may apply to construction or operation of the project. Rule 403 requires the implementation of best available fugitive dust control measures during active operations capable of generating fugitive

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2 South Coast Air Quality Management District, AQMD Website, www.aqmd.gov/news1/aqmp_adopt.htm. Accessed July 27, 2005.

3 The Basin has technically met the CO standards since 2002, but the official attainment status has not been reclassified by the USEPA.

4 CARB submitted the 2003 AQMP to the USEPA in October 2003 for review and approval. The USEPA had not approved the modified version of the 2003 AQMP when this Air Quality Impact Analysis was prepared. In the event that USEPA rejects the plan, the assigned emissions reductions would be eliminated,

dust emissions from onsite earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. The full text of most recent SCAQMD Rule 403, amended in June 2005, is included in Appendix D of this Draft EIR.

The SCAQMD has published a handbook (CEQA Air Quality Handbook, November 1993) that is intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. In addition, the SCAQMD has published a guidance document (Localized Significance Threshold Methodology for CEQA Evaluations, June 2003) that is intended to provide guidance in evaluating localized effects from mass emissions during construction. Recently, the SCAQMD adopted additional guidance regarding $PM_{2.5}$ (*Final-methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds*, October 2006)

A.2.4 Air Quality and Land Use Planning Guidelines

The CARB recently adopted the Air Quality and Land Use Handbook (April 2005) to provide guidance to planning agencies and air districts for considering potential impacts to sensitive land uses proposed in proximity to toxic air contaminant (TAC) emission source(s). The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. CARB's siting guidelines recommended the following: (1) avoid siting sensitive receptors within 500 feet of freeways and high-traffic roads (i.e., roads within urbanized areas carrying more than 100,000 vehicles per day); (2) avoid siting sensitive receptors within 1,000 feet of an applicable distribution center; and (3) avoid siting sensitive receptors within 300 feet of a dry cleaning facility that use the chemical perchloroethylene. The recommendations provided are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. In addition, reducing diesel particulate matter (DPM) is one of the CARB's highest public health priorities and the focus of a comprehensive statewide control program that is reducing DPM emissions each year. The CARB's long-term goal is to reduce DPM emissions 85 percent by 2020.

The SCAQMD has adopted similar guidelines in the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (May 2005), which also considers impacts to sensitive receptors from facilities that emit TAC emissions. SCAQMD's distance recommendations are the same as CARB's in that a 500-foot siting distance for sensitive receptors is recommended in proximity of freeways and high-traffic roads, and SCAQMD's criteria includes siting distances for distribution centers and dry cleaning facilities. The SCAQMD's document introduces land use related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

A.2.5 Regional Comprehensive Plan and Guide

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. As the designated MPO, SCAG is mandated by the federal government to develop and implement regional plans that address transportation, growth management, hazardous waste management, and air quality issues. With respect to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) for the SCAG region, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and

transportation components of the AQMP and are utilized in the preparation of air quality forecasts and the consistency analysis that is included in the AQMP.

A.2.6 Los Angeles County Congestion Management Plan

The Congestion Management Plan (CMP) for the County of Los Angeles was developed to meet the requirements of Section 65089 of the California Government Code. In enacting the CMP statute, the State legislature noted the increasing concern that urban congestion was impacting the economic vitality of the State and diminishing the quality of life in many communities. The CMP was created to further the following objectives:

- To link land use, transportation and air quality decisions.
- To develop a partnership among transportation decision makers to encourage appropriate transportation solutions include all modes of travel.
- To propose transportation projects which are eligible for State gas tax funds.

A.2.7 City of Pasadena General Plan

Local jurisdictions, such as the City of Pasadena, have the authority and responsibility to reduce air pollution through its power and decision-making authority. In 2004, the City of Pasadena revised the land use and mobility elements of the General Plan, which, with the other general plan elements, such as housing, conservation, and open space, will guide the overall development of Pasadena through horizon year 2015. The City of Pasadena has not adopted an air quality element in their General Plan. Even so, in accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures. The project is located in the Central District Specific Plan Area, and the City has adopted objectives specific to the Central District that function to protect the area's vibrant urban core and distinctive character.

A.2.8 City of La Canada Flintridge General Plan

The City of La Canada Flintridge adopted the Downtown Village Specific Plan (DVSP) in November of 2000. The project site, collocated within the Foothill Municipal Water District, is in a portion of the DVSP area zoned for intuitional uses. The City has not adopted any specific applicable goals regarding air quality.

A.3 Biological Resources

A.3.1 Sensitive Resource Classification

The federal Endangered Species Act (FESA) defines an Endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action which could affect a Federally-listed plant and

animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

The USFWS instituted changes in the listing status of candidate species and abandoned the C1/C2 model. Former C1 candidate species are now considered Federal candidate species (FC). Some USFWS field offices (e.g., Sacramento) maintain lists of Federal Species of Concern (FSC). These species receive no legal protection and the use of the term does not mean that they will eventually be proposed for listing (http://sacramento.fws.gov/es/spp_concern.htm). The Carlsbad Fish and Wildlife Office do not maintain such a list for their jurisdiction, which includes Los Angeles, Orange, Riverside, San Bernardino, Imperial, and San Diego Counties. All references to Federally protected species in this report include the most current published status to which each species has been assigned by USFWS.

For purposes of this assessment the following acronyms are used for Federal status species:

FE Federally listed as Endangered

FT Federally listed as Threatened

FPE Federally proposed for listing as Endangered

FPT Federally proposed for listing as Threatened

FPD Federally proposed for delisting

FC Federal candidate species (former Category 1 candidates)

Federal Clean Water Act (CWA), Section 404

Section 404 of the CWA regulates the discharge of dredged material, placement of fill material, or excavation within "waters of the U.S." and authorizes the Secretary of the Army, through the Chief of Engineers, to issue permits for such actions. "Waters of the U.S." are defined by the CWA as "rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands." Wetlands are defined by the CWA as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions." The permit review process entails an assessment of potential adverse impacts to ACOE jurisdictional "waters of the U.S." and wetlands. In response to the permit application, the ACOE will also require conditions amounting to mitigation measures. Where a federally listed species may be affected, they will also require Section 7 consultation with the USFWS under the FESA. Through this process, potentially significant adverse impacts within the Federal jurisdictional limits could be mitigated to a level that is less than significant.

Federal Clean Water Act, Section 401

The mission of the California RWQCB is to develop and enforce water quality objectives and implement plans that will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology, and hydrology. Section 401 of the CWA requires that:

> *"any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states*

that the discharge will comply with the applicable provisions under the Federal Clean Water Act."

Therefore, before the ACOE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the RWQCB. A complete application for 401 Certification will include a detailed Water Quality Management Plan that will address the key water quality features of the project to ensure the integrity of water quality in the area during and post-construction.

Under separate authorities granted by State law (i.e., the Porter-Cologne Water Quality Control Act), a RWQCB may choose to regulate discharges of dredge or fill materials by issuing or waiving (with or without conditions) Waste Discharge Requirements (WDRs), a type of State discharge permit, instead of taking a water quality certification action. Processing of a WDR is similar to that of a Section 401 certification; however, the RWQCB has slightly more discretion to add conditions to a project under the Porter-Cologne Act than under the Federal CWA. Recently, the RWQCB's have used the WDR process to regulate discharge of dredge or fill to isolated waters that are not subject to ACOE jurisdiction.

A.3.2 State Guidelines

Sensitive Resource Classification

The State Endangered Species Act (CESA) defines an Endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a Threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a Threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of Endangered species or the list of Threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as Threatened or Endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of Threatened or Endangered species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow, "take" require permits or memoranda of understanding and can be authorized for "Endangered

species, Threatened species, or candidate species for scientific, educational, or management purposes." Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFG's CNDDB project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For the purposes of this assessment, the following acronyms are used for state status species:

- SE State listed as Endangered
- ST State listed as Threatened
- SR State listed as Rare
- SCE State candidate for listing as Endangered
- SCT State candidate for listing as Threatened
- SFP State Fully Protected
- CSC California Species of Special Concern

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of rare, threatened, or endangered plant species of California (CNPS 2001). The list serves as the candidate list for listing as threatened and endangered by CDFG. CNPS has developed five categories of rarity:

- List 1A Presumed extinct in California
- List 1B Rare or Endangered in California and elsewhere
- List 2 Rare or Endangered in California, more common elsewhere
- List 3 Plants for which we need more information – Review list
- List 4 Plants of limited distribution – Watch list

Sensitive species that potentially occur within the study area are based a record reported in the CNDDB and if the study area is within the known distribution of a species and contains appropriate habitat.

State of California Fish and Game Code, Section 1602

Section 1602 of the California Fish and Game Code requires any entity (e.g., person, state or local government agency, or public utility) who proposes a project that will

substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, to first notify the CDFG of the proposed project. In the course of this notification process, the CDFG will review the proposed project as it affects streambed habitats within the project area. The CDFG may then place conditions on the Section 1602 Streambed Alteration Agreement to avoid, minimize, and mitigate the potentially significant adverse impacts within CDFG jurisdictional limits.

A.3.3 City of Pasadena Tree Protection Ordinance, Municipal Code 8.52

The City of Pasadena has amended its Municipal Code (Chapter 8.52) to include the protection of trees within ordinance 6896 "City Trees and Tree Protection Ordinance" (tree ordinance). The tree ordinance protects public trees (any tree within or partially within public land), landmark trees (trees of historic or cultural significance as determined by the City), native trees (at least 8-inch diameter at breast height) and specimen trees (determined by City based on species and size) in certain areas of the City in recognition of the significant aesthetic, environmental, and economic benefits to the community provided by trees, and to increase the tree canopy in Pasadena.

Public, landmark, specimen and native trees as defined by the tree ordinance may not be impacted without approval from the Pasadena City manager. Impacts include mechanical injury to tree roots, trunks, or branches; the compaction of soil; and changes to existing grade, which may expose or suffocate tree roots.

A.3.4 City of La Cañada-Flintridge Tree Ordinance, Municipal Code 4.26

The City of La Canada-Flintridge tree protection ordinance was adopted to preserve and protect the trees of the City. The intent is to preserve and encourage the regeneration of a healthy urban forest that contributes to clean air, soil conservation, shade and windbreak protection, moderation of climatic extremes, aesthetics, enhanced property values and quality of life.

Trees protected by the ordinance include native oak, sycamore, deodar cedar, Chinese elm, and California pepper tree with a trunk measuring 12 inches or more in diameter (as measured at a point four feet from the ground surface at the natural grade). Where a tree trunk is divided below four feet above grade, the diameter of all trunks (as measured four feet from the natural grade) shall be added to determine tree diameter.

Trees protected by the ordinance may not be removed without a permit from the City. The applicant is required to submit a Tree Plan as detailed in Section 4.26.030.C of the municipal code.

A.4 Cultural Resources

A.4.1 Federal Guidelines

First authorized by the Historic Sites Act of 1935, the National Register of Historic Places (National Register) was established by the NHPA of 1966, as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment." The National Register recognizes properties that are significant at the national, State and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria:

1. Are associated with events that have made a significant contribution to the broad patterns of our history;
2. Are associated with the lives of persons significant in our past;
3. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least fifty years old to be eligible for National Register listing.

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance." The National Register recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

A.4.2 State Guidelines

1.1.2.1 California Register of Historical Resources

The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State's jurisdictions.

Created by Assembly Bill 2881 which was signed into law on September 27, 1992, the California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change." The criteria for eligibility for the California Register are based upon National Register criteria. Certain resources are determined by the statute to be automatically included in

the California Register, including California properties formally determined eligible for, or listed in, the National Register of Historic Places.

To be eligible for the California Register, a prehistoric or historic property must be significant at the local, state, and/or federal level under one or more of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- 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; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register.
- California Registered Historical Landmarks from No. 770 onward.
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5.
- Individual historical resources.
- Historical resources contributing to historic districts.
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

1.1.2.2 California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources (PRC Sections 21000 et seq.). As defined in Section 21083.2 of the PRC a "unique" archaeological resource is 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 there is a 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.

In addition, CEQA Section 15064.5 broadens the approach to CEQA by using the term "historical resource" instead of "unique archaeological resource." The CEQA Guidelines recognize that certain historical resources may also have significance. The Guidelines recognize that a historical resource includes: (1) a resource in the California Register of Historical Resources; (2) a resource included in a local register of historical resources, as defined in PRC §5020.1 (k) or identified as significant in a historical resource survey meeting the requirements of PRC §5024.1 (g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of §21084.1 of the PRC and §15064.5 of the Guidelines apply. If an archaeological site does not meet the criteria for a historical resource contained in the Guidelines, then the site is to be treated in accordance with the provisions of PRC §21083, which is a unique archaeological resource. The Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. (Guidelines §15064.5(c)(4)).

1.1.2.3 Paleontological Resources

Paleontological resources are also afforded protection by environmental legislation under CEQA. Appendix G (part V) of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, which states, "a project will normally result in a significant impact on the environment if it will …disrupt or adversely affect a paleontological resource or site or unique geologic feature, except as part of a scientific study." Section 5097.5 of the PRC specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for damage or removal of paleontological resources.

1.1.3 City of Pasadena General Plan

Historic and cultural resources are discussed in the City's 2004 Comprehensive General Plan, Land Use Element. This General Plan also contains a Historic/Cultural Element. The main goal of this element is to, "… identify and protect areas, sites and structures having architectural, historical or cultural significance and to reaffirm their continuing value as a resource contributing to the vitality and diversity of the present" (City of Pasadena 2004). The Historic/Cultural element outlines Pasadena's historic preservation issues, policies, goals and objectives. It also provides guidelines and policies for developers regarding the identification and protection of archaeological and paleontological resources.

A.4.4 City of Pasadena Historic Resources Ordinance

The City of Pasadena adopted a Historic Preservation Ordinance in November 2002. It is found in the City of Pasadena Zoning Code, Title 17, Article 6, Chapter 17.62. Among other things, the ordinance established a project review process to identify any potential impacts to historic resources on a project-by-project basis.

A.5 Geology and Soils

A.5.1 State Policies and Regulations

California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was signed into law in 1972 with its primary purpose being to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The Act requires the State Geologist to delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The Act dictates that cities and counties withhold development permits for projects within an Earthquake Fault Zone within their jurisdiction until geologic investigations demonstrate that the projects are not threatened by surface displacements from future faulting. Projects include all land divisions and most structures for human occupancy. State law exempts single-family wood-frame and steel-frame dwellings which are less than three stories and are not part of a development of four units or more. However, local agencies can be more restrictive than State law requires.

California Seismic Hazards Mapping Act

The goal of the Seismic Hazards Mapping Act of 1990 is to minimize loss of life and property by identifying and mitigating seismic hazards. The act addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction and seismically induced landslides. The State agency charged with implementation of the Act is the California Geological Survey (CGS). The CGS prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The seismic hazard zones delineated by the CGS are referred to as “zones of required investigation,” because site-specific geological hazard investigations are required for construction projects located within these areas.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) was passed in 1970 to insure that local governmental agencies consider and review the environmental impacts of development projects within their jurisdictions. CEQA requires that an Environmental Impact Report (EIR) be prepared for projects that may have significant effects on the environment. EIRs are required to identify geologic and seismic hazards, and to recommend potential mitigation measures, giving the local agency the authority to regulate private development projects in the early stages of planning.

California Building Code

The **California Building Code** (CBC), which is included in Title 24 of the California Administrative Code, provides “minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures” within the City of Pasadena. These documents are historically updated every three years. The most current CBC adopted by the City of Pasadena is the 2001 edition, based on the 1997 edition of the Uniform Building Code.

Unreinforced Masonry Law

The Unreinforced Masonry Law of 1986 requires all cities and counties in Seismic Zone 4 (CBC, 1998) to identify hazardous unreinforced masonry (URM) buildings in their jurisdictions. Owners of such buildings must be notified of the potential earthquake hazard, and mitigation must be performed. The mitigation method, which may include retrofitting or demolition, is left to the local jurisdiction. URMs in Pasadena have been identified and catalogued, in accordance with the 1994 Uniform Code for Conservation of Buildings (Chapter 14.06 of the City Code – also

referred to as the City's URM Ordinance). Many of the URMs on the original list compiled by the City have since been retrofitted or demolished; the rest are all at various stages of the mitigation process.

A.5.2 Local Policies and Regulations

City of Pasadena General Plan Safety Element

Goal S-1: Minimize injury and loss of life, property damage, and other impacts caused by seismic shaking, fault rupture, ground failure, earthquake-induced landslides, and other earthquake-induced ground deformation.

> **Policy S-1**: The City will monitor development or re-development within the Fault Hazard Management Zones identified for both the Sierra Madre and Raymond faults.
>
> **Policy S-2**: The City will ensure that current geologic knowledge and State-certified professional review are incorporated into the design, planning and construction stages of a project, and that site-specific data are applied to each project.
>
> **Policy S-3**: The City will strive to ensure that the design of new, and the performance of existing structures address the appropriate earthquake hazards.
>
> **Policy S-4**: The City will ensure to the fullest extent possible that, in the event of a major disaster, essential structures and facilities remain safe and functional, as required by current law. Essential facilities include hospitals, police stations, fire stations, emergency operation centers, communication centers, generators and substations, and reservoirs.
>
> **Policy S-5**: The City will continue earthquake strengthening and provisions for alternate or back-up essential services, such as water, sewer, electricity, and natural gas pipelines and connections throughout the City. First priority for this program should be for the essential services within the identified fault hazard management zones.

Goal G-1: Minimize the risk to life or limb, and property damage resulting from soil and slope instability.

> **Policy G-1**: Whenever possible, mitigation of geologic hazards will be conducted without violating the property owners' rights to modify or improve their investment, along with preserving the aesthetic or natural conditions of the area through minimal grading. When these goals are in conflict, protection of life and property will take precedence.
>
> **Policy G-2**: The City will continue to participate in regional programs designed to protect the groundwater resources of the Raymond Basin while protecting the area from the hazard of regional ground subsidence.

A.5.3 Los Angeles County General Plan

C. Safety Element Goals & Policies

Seismic Hazards

Goal: Minimize injury and loss of life, property damage, and the social, cultural, and economic impacts caused by earthquake hazards.

Policies:

1. Encourage the use of nonurbanized segments of active fault zones for rural and open space purposes.

3. Continue enforcement of stringent site investigations (such as seismic, geologic, hydrologic, and soils investigations) and implementation of adequate hazard mitigation measures for development projects in areas of high earthquake hazard, especially those involving critical facilities. Do not approve proposals and projects which cannot mitigate safety hazards to the satisfaction of responsible agencies.

5. Promote the strengthening or replacement of critical facilities; and the retrofitting or abatement of potentially hazardous buildings, highway structures, and dams and reservoirs which do not meet seismic safety standards.

6. Encourage the preservation and sensitive reuse of historic buildings, which need strengthening for protection from seismic hazards, in a manner that does not endanger public safety.

7. Strengthen earthquake resistance standards for nonstructural components, especially in critical facilities.

Geologic Hazards

Goal: Protect public safety and minimize the social and economic impacts from geologic hazards.

Policies:

8. Review proposals and projects proposing new development and expansion of existing development in areas susceptible to land sliding, debris flow, and rock falls, and in areas where collapsible soils are a significant problem; and disapprove projects which cannot mitigate these hazards to the satisfaction of responsible agencies.

9. Continue to improve and enforce stringent slope investigation and design standards, and to apply innovative hazard mitigation and maintenance plans for development in hillside areas.

A.6 Hazards and Hazardous Materials

A hazardous material is defined by the California Department of Toxic Substances Control (DTSC) as a material that poses a significant present or potential hazard to human health and safety or the environment if released because of its quantity, concentration, or physical or chemical characteristics (26 CCR 25501). For the purposes of this analysis, hazardous materials include raw materials, and hazardous waste includes waste generated by facilities and businesses or waste material remaining on site as a result of past activities. Hazardous materials that would be stored on site as part of the operation of the Proposed Project include chlorine gas, aqueous ammonia, and oil. Applicable regulations and policies considered relevant to the Proposed Project are summarized below.

A.6.1 Federal Regulations

The principal federal regulatory agency responsible for the safe use and handling of hazardous materials is EPA. Two key federal regulations pertaining to hazardous wastes are described below. Other applicable federal regulations are contained primarily in 29, 40, and 49 CFR.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act enables EPA to administer a regulatory program that extends from the manufacture of hazardous materials to their disposal, thereby regulating the generation, transport, treatment, storage, and disposal of hazardous waste at all facilities and sites in the nation.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund, was passed to facilitate the cleanup of the nation's toxic waste sites. In 1986, superfund was amended by the Superfund Amendment and Reauthorization Act Title III community right-to-know laws).

Title III states that past and present owners of land contaminated with hazardous substances can be held liable for the entire cost of the cleanup even if the material was dumped illegally when the property was under different ownership. As mentioned above, portions of the former Fort Ord, including portions of the project study area, are designated NPL sites that are slated for priority cleanup under the federal Superfund program.

National Pollutant Discharge Elimination System (NPDES)

The **Clean Water Act of 1995** and its subsequent amendments give the U.S. Environmental Protection Agency (EPA) the authority to regulate industrial and municipal discharges into public storm drains, sewer systems and surface water bodies.

The **National Pollutant Discharge Elimination System (NPDES) permit program** controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are defined by the EPA as discrete conveyances such as pipes or man-made ditches.

The City of Pasadena is a member of the **Los Angeles County Stormwater Program.** This program regulates and controls storm water and urban runoff into the Los Angeles River, San Gabriel River, Santa Clara River, tributaries to these rivers, and ultimately, the Pacific Ocean. The Los Angeles County Stormwater Program is the local enforcer of the NPDES program. In the Pasadena Area, NPDES permits are filed with the California Regional Water Quality Control Board, Los Angeles Region.

Emergency Planning and Community Right-to-Know Act (EPCRA)

The primary purpose of the Federal Emergency Planning and Community Right-To-Know Act (EPCRA) is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report to state and local agencies the locations and quantities of chemicals stored on-site. Section 313 of EPCRA requires manufacturers to report the release to the environment of any of more than 600 designated toxic chemicals. These reports help communities prepare to respond to chemical spills and similar emergencies. In the City of Pasadena, businesses that use, store or generate any amount of hazardous materials are required to provide the Fire department with an inventory of the hazardous materials that they use. This helps the Fire Department identify the appropriate actions to take in the event of a significant or threatened significant release of a hazardous material.

EPCRA mandates that Toxic Release Inventory (TRI) reports be made public. The TRI is a database that contains information on toxic chemical releases and other waste management activities reported annually by certain industry groups as well as federal facilities. This inventory was established in 1986 under the EPCRA and expanded by the **Pollution Prevention Act of 1990**.

A.6.2 State Regulations

California regulations are equal to or more stringent than federal regulations. EPA has granted the state primary oversight responsibility to administer and enforce hazardous waste management programs. State regulations require planning and management to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several key laws pertaining to hazardous wastes are discussed below.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a hazardous materials business plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to, but more stringent than, the federal Resource Conservation and Recovery Act program. The act is implemented by regulations contained in 26 CCR, which describes the following required aspects of the proper management of hazardous waste:

- identification and classification;
- generation and transport;
- design and permitting of recycling, treatment, storage, and disposal facilities;
- treatment standards;
- operation of facilities and staff training; and
- closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of them. Under the Hazardous Waste Control Act and 26 CCR, the generator of hazardous waste must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

Emergency Services Act

Under the Emergency Services Act, the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services. The office coordinates the responses of other agencies, including the EPA, California Highway Patrol, RWQCBs, air quality management districts, and county disaster response offices.

California Occupational Safety and Health Administration Standards

Worker exposure to contaminated soils, vapors that could be inhaled, or possibly groundwater containing hazardous levels of constituents would be subject to monitoring and personal safety equipment requirements that are established in California Occupational Safety and Health Administration (Cal/OSHA) regulations (Title 8) and specifically address airborne contaminants. Site controls pertaining to asbestos and lead exposure, which could be an issue in the former artillery range areas, during construction activities are also included in Cal/OSHA regulations.

The primary intent of the Title 8 requirements is to protect workers, but compliance with some of these regulations would also reduce potential hazards to nonconstruction workers and project area occupants, because required site monitoring, reporting, and other controls would be in place.

Workers who are in direct contact with soil or groundwater containing hazardous levels of constituents would perform all activities in accordance with a hazardous operations site-specific health and safety plan (HSP), as outlined in Cal/OSHA standards. An HSP is not required for workers such as heavy equipment operators, carpenters, painters, or other construction workers who would not be performing investigation or remediation activities where direct contact with materials containing hazardous levels of constituents could occur. However, elements of an HSP protect those workers who may be adjacent to cleanup activities by establishing engineering controls, monitoring, and security measures to prevent unauthorized entry to cleanup sites and to reduce hazards outside the investigation/cleanup area.

In addition to an HSP, Cal/OSHA requires that contaminated sites listed under the NPL must have a risk management plan (RMP) reviewed and approved by the RWQCB and administered by the responsible party. The RMP identifies specific measures to reduce potential risks to human and ecological populations during construction of the Proposed Project for each site or group of sites to be developed. The RWQCB follows EPA guidelines for risk management. EPA and DTSC guidelines divide potential human health risks associated with exposure to chemicals into cancer risks and noncancer hazard indices. The calculated cancer risk characterizes health risks as a result of exposure to carcinogenic substances by using estimated or measured concentrations and risk/potency factors. The calculated cancer risk is an approximation of the probability of an individual developing cancer over the course of a lifetime as a result of exposure to a particular cumulative dose of a potential carcinogen.

Unlike cancer risk estimates, the measure used to describe the potential for noncarcinogenic toxic effects to occur is expressed in terms of a hazard index (HI), which is calculated as the ratio of the predicted acute or chronic exposure (dose) of a noncarcinogenic substance to that chemical's toxicity threshold, often referred to as the reference dose. The HI assumes that there is a level of exposure below which it is unlikely, even for sensitive populations, to experience adverse health effects. Because there are inherent uncertainties and assumptions used in the modeling, the final calculated risk value therefore should be viewed as a very conservatively estimated probability of occurrence. The HIs for the project site will be determined before construction by the lead agency in the site's cleanup process.

A.6.3 Local Regulations

Safety Element Goals and Policies (Pasadena General Plan)

Goal H-1: Reduce the potential for hazardous contamination in the City.

> **Program H-1.1**: The City will continue the enforcement of disclosure laws that require all users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use or transport, and to notify the appropriate City, County, State and Federal agencies in the event of a violation.
>
> **Program H-1.2**: The City will identify City roadways along which hazardous materials are routinely transported. If critical facilities, such as schools, hospitals, child care centers or other facilities with special evacuation needs are located along these routes, identify emergency response plans that these facilities can implement in the event of an unauthorized release of hazardous materials.

Policy H-1.3: New proposed facilities involved in the production, use, storage, transport or disposal of hazardous materials will be located a safe distance from land uses that may be adversely impacted by such activities. Conversely, new sensitive facilities shall not be allowed to be located near existing sites that use, store or generate hazardous materials.

Policy H-1.4: The City shall assure the continued response to and capability of handling hazardous materials incidents in the City and along the sections of freeways that extend across the City.

Policy H-1.5: The City will continue to encourage residents and businesses to reduce or eliminate the use of hazardous materials. This includes encouraging residents to buy toxic substances in only the amount needed to do the job, or better yet, to use safer non-toxic alternate products that do not pose a threat to the environment.

Program H-1.6: The City will continue to support the operation of recycling centers that take hazardous substances, such as paint, paint thinner, used waste oil, etc.

Goal D-1: Plan for emergency response and recovery from natural and urban disasters, especially from earthquake and terrorist threats.

Program D-1.10: The City will compile and maintain inventories of facilities with special risks, hazards and needs, that may create special response situations during disasters.

Hazardous Materials Disclosure Program

Pasadena requires all businesses that handle any amount of hazardous materials to submit an inventory of the hazardous materials that they manage to the Pasadena Fire Department.

Los Angeles County General Plan Safety Element

Hazardous Materials

Goal: Reduce threats to the public health and safety from hazardous materials, especially threats induced by earthquakes.

Policies:

21. Promote the safe transportation of hazardous materials.
22. Encourage businesses and organizations which store and use hazardous materials to improve management and transportation of such materials.
24. Encourage improved, timely communications between businesses and emergency response agencies regarding hazardous materials/waste incidents.

Pasadena requires all businesses that handle any amount of hazardous materials to submit an inventory of the hazardous materials that they manage to the Pasadena Fire Department.

A.6.4 Other Laws, Regulations, and Programs

Various other state regulations have been enacted that affect hazardous waste management, including:

- Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), which requires labeling of substances known or suspected by the state to cause cancer; and

- California Government Code Section 65962.5, which requires the Office of Permit Assistance to compile a list of possible contaminated sites in the state.

State and federal regulations also require that hazardous materials sites be identified and listed in public records. These lists include:

- Comprehensive Environmental Response, Compensation, and Liability Information System;
- National Priorities List for Uncontrolled Hazardous Waste Sites;
- Resource Conservation and Recovery Act;
- California Superfund List of Active Annual Workplan Sites; and
- lists of state-registered underground and leaking underground storage tanks.

A.7 Hydrology and Water Quality

A.7.1 Federal Guidelines

a. Clean Water Act (CWA)

The Federal water quality regulations are primarily established in the Clean Water Act and administered by the U.S. Environmental Protection Agency. The State Water Resources Control Board, Department of Water Resources and other state agencies implement these regulations as appropriate.

b. Section 404

Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into waters of the United States. Under Section 404, the Army Corps of Engineers is responsible for issuing permits (typically called Section 404 permits) authorizing the placement of dredged or fill materials into jurisdictional waters.

c. Section 402

The 1972 amendments to the federal Water Pollution Control Act established the NPDES permit program to control discharges to pollutants from point sources (Section 402). The 1987 amendments to the Clean Water Act created a new section of the act devoted to stormwater permitting (Section 402[p]). The USEPA has granted the State primacy in administering and enforcing the provisions of the Clean Water Act and the NPDES permit program. The NPDES permit program is the primary federal program that regulates point-source and non-point-source discharges to the waters of the United States.

d. USEPA Underground Injection Control Program

A.7.2 State Guidelines

a. Porter Cologne Water Quality Act

The agencies that could have some oversight of the PGSP as it relates to flood and water quality control include the California Regional Water Quality Control Board per the Porter Cologne Water Quality Act. The *Water Quality Control Plan, Los Angeles Region* (also known as the 'Basin Plan') implements a number of state and federal laws, including the CWA and the Porter Cologne Water Quality Act. The Basin Plan provides quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies within the Los Angeles Region. Specific criteria are provided for the larger, designated water bodies within the region, as well as general criteria or guidelines for surface waters and groundwater. The beneficial uses of water in the Raymond Basin are for agriculture (agricultural supply waters used for farming, horticulture, or ranching), municipal uses (community, military, or individual water supply systems including, but not limited to, drinking water supply) and fresh water habitat. In general, the narrative criteria require that degradation of water quality does not occur due to increases in pollutant loads that would adversely impact the designated beneficial uses of a water body.

b. Resolution 68-16 – Statement of Policy with Respect to Maintaining High Water Quality in California (also known as the State's "Antidegradation Policy")

Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality water will be maintained until it has been demonstrated to the State that any change will be consistent with maximum

benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to ensure that (a) pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

c. State Stormwater NPDES Permit Program

Construction activities in the State are regulated under the General Construction Permit, provided that the total amount of ground disturbance during construction exceeds 1 acre. The Los Angeles Regional Water Quality Control Board enforces the General Construction Permit in the Raymond Basin. Coverage under the General Construction Permit requires the preparation of a Stormwater Pollution Prevention Plan (or SWPPP); a document that includes pollution prevention measures (i.e., erosion and sediment control measures) to control non-point discharges occurring during rain events and measures to control non-stormwater discharges such as hazardous spills. The SWPPP also demonstrates compliance with all applicable local and regional erosion and sediment control standards, identifies responsible parties, provides construction scheduling information, and lists Best Management Practices (BMPs) for use during the project. Permitees are require to correctly implement and maintain effective control of discharges of stormwater-related pollutants. The owner/operator would obtain coverage under the NPDES General Construction Permit prior to any construction activities exceeding 1 acre in total land disturbance.

d. Los Angeles Regional Water Quality Control Board

The Los Angeles Regional Water Quality Control Board designates the beneficial uses of surface and groundwater resources for the Raymond Basin and established applicable Water Quality Objectives (both numerical and narrative objectives) in the *Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (also known as the LARWQCB Basin Plan) to protect the designated beneficial uses and conform to the state's antidegradation policy (Resolution 68-16, discussed above). The Basin Plan also describes implementation programs to protect all waters in the Region, and incorporates, by reference, all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations.

The LARWQCB Basin Plan was revised for issues or objectives that could affect the PGSP. Basin-specific Water Quality Objectives were identified for the Raymond Basin in the Basin Plan and used in the water quality evaluation. Additionally, region-wide water quality objectives were considered along with other regulatory standards such as the federal and state drinking water quality standards.

e. Raymond Basin Management Board

The Raymond Basin was the first groundwater basin to be adjudicated in the State of California. On March 26, 1984, the third modification of the Raymond Basin Judgment was approved, reconstituting the basin governance system by assigning the Watermaster responsibilities to the Raymond Basin Management Board (successor to the Raymond Basin Advisory Board). Under the judgment modification, the RBMB was given the authority to manage storage of water in the basin in addition to implementation of the management program to ensure basin extractions do not exceed a fixed safe-yield value. As management of the groundwater basin entails ensuring the quality of the supply in addition to the quantity, the RBMB drafted the *Supplemental Water Quality Criteria for the Raymond Basin* in 2006 as a means of formalizing the process for

evaluating and approving conjunctive use projects that include direct injection of import water into the basin. Under the Raymond Basin adjudication judgment, RBMB approval of the PGSP is required prior to implementation.

A.7.3 City of Pasadena General Plan

The City of Pasadena General Plan recognizes that, according to the City's 2005 Urban Water Management Plan, the projected future water demand (as a result of the 2004 Land Use Element) is well within the projected supply reported in the *Pasadena 2000 Urban Water Management Plan*. The document does, in addition, recognize that, to avoid groundwater depletion, the Raymond Basin Conjunctive Use Program is required to ensure adequate supply. (Note: this PGSP is part of the RBCUP program along with the Foothill Conjunctive Use Program).

A.8 Land Use and Recreation

A.8.1 County General Plan

The Los Angeles County General Plan Land Use Element sets forth countywide policy for the general location and intensity of land use. The Element serves as a tool for coordinating future development and revitalization plans of both the public and private sectors. The Land Use Element calls for a distribution of use intensities within urban areas necessary to carry out this policy. It also reinforces the Plan's general policies of conserving natural resources and protecting population from natural hazards by careful management of development in sensitive areas.

Goals:

Coordination with Public Services: To provide for land use arrangements that take full advantage of existing public service and facility capacities.

Quality Neighborhoods: To maintain and enhance the quality of existing residential neighborhoods.

Coordination with Transportation: To coordinate land use with existing and proposed transportation networks.

Convenient Commercial Uses: To situate commercial activities in viable clusters that conveniently serve their market areas.

Sufficient Commercial and Industrial Lands: To provide commercial and industrial lands sufficient to accommodate the projected labor force.

Quality, Compatible Design: To encourage high quality design in all development projects, compatible with, and sensitive to, the natural manmade environment.

Energy Conservation and Improved Air Quality: To foster compatible land sue arrangements that contribute to reduced energy consumption and improved air quality.

Decision-Making Process: To provide a land use decision-making process supported by adequate information and ongoing citizen participation.

Efficient Use of Land: To encourage more efficient use of land, compatible with, and sensitive to, natural ecological, scenic, cultural and open space resources.

A.8.2 City of Pasadena General Plan

The City of Pasadena Comprehensive General Plan and Municipal Code provide regulations governing land use, which are intended to guide future growth and development within the City. The General Plan is the fundamental planning policy document of the City, providing a "blueprint" for the identification of the location of land uses, as well as the basic design and function of circulation, open space, and infrastructure policies, as well as public service needs. Zoning is used by the City to regulate where specific uses may be located, and controls the size and types of such uses.

Green Space Recreation Element Update and Recreation and Parks Master Plan

The City of Pasadena is undertaking an effort to update the Green Space/Recreation Element of its General Plan as well as create a comprehensive Recreation and Parks Master Plan. Formerly known as the Open Space Element, the Green Space/Recreation Element will serve as a framework of goals and policies to assure efficient stewardship of the City's green spaces, recreation facilities, and natural resources. As required by California State Planning Law, the Green Space element is intended to guide the comprehensive and long-range preservation and conservation of open space land within the City's jurisdiction, as well as provide guidelines for an implementation program. The City of Pasadena's existing Open Space plan was last drafted in 1976. A Recreation Element is an optional element of the General Plan. First adopted in 1983 as part of the Cultural Recreational Element, Recreation is now an integral component of the overall Green Space program. There have been recent updates to the Mobility and Land Use (2004) Elements.

City of Pasadena Comprehensive General Plan Land Use Element. Updated November 8, 2004.

To protect residential neighborhoods and to create mixed-use urban environments oriented to transit and pedestrian activity, the Land Use Element targets higher density development into specific areas. This targeted development will be of high quality and reflect the historic scale and character of Pasadena while ensuring the continued vitality of Pasadena's economy. The Land Use Element advocates several strategies for targeting growth. Specific plans determine precise land use patterns, setbacks, and design within defined boundaries. Specific plans are used in seven major targeted development areas: the Central District; West Gateway; South Fair Oaks Biomedical Center; East Colorado Boulevard; East Pasadena; North Lake; and Fair Oaks/Orange Grove.
http://www.cityofpasadena.net/planning/deptorg/commplng/GenPlan/pdf/LandUseElement_110804.pdf

Objective 17 – Recreation: Provide adequate recreation opportunities to all residents of the City.

Policy 17.1 – Accessible Neighborhood Parks: Preserve, enhance and acquire parks with adequate recreational facilities in residential areas, including planning for, and locating parks within walking distance of, multi-family housing.

Policy 17.2 – Shared Facilities: Promote the shared use of public school recreational land and facilities for City recreational uses and/or as community centers.

Policy 17.3 – Equitable Distribution: Promote the equitable distribution of public and private recreation facilities throughout the City, as a function of population distribution.

Policy 17.4 – Urban Open Spaces: Encourage and require, where feasible, the incorporation of publicly accessible urban open spaces, including parks, courtyards, water features, gardens, passageways and plazas, into public improvements and private projects.

A.8.3 City of Pasadena Zoning Code

The purpose of the Pasadena Zoning Code is to protect and promote the public health, safety and general welfare, and to implement the policies of the General Plan by classifying and regulating

the uses of land and structures within the City of Pasadena in a manner consistent with the General Plan. To achieve this purpose, it is the intent of this Zoning Code to:

- Provide standards for the orderly development of the City and continue a stable pattern of land uses;
- Conserve and protect the historical integrity and character of the City's neighborhoods;
- Maintain and protect the value of property;
- Ensure the provision of adequate open space for light, air, and fire safety;
- Promote the economic stability of existing land uses that conform to the General Plan and protect them from intrusions by inharmonious or harmful land uses;
- Permit the development of office, commercial, industrial, and transportation-related land uses in accordance with the general plan in order to strengthen the City's economic base;
- Ensure compatibility between land uses; and
- Encourage a pedestrian-friendly community by promoting a mix of land uses and pedestrian- oriented development in commercial areas.

http://www.ci.pasadena.ca.us/zoning/

A.8.4 Regional Plans

Pasadena is within the jurisdiction of the Southern California Association of Governments (SCAG), a regional planning agency that serves as the Metropolitan Planning Organization for six counties (Los Angeles, Orange, San Bernardino, Riverside, Imperial, and Ventura). SCAG is mandated by Federal law to maintain regional plans for transportation, growth management, hazardous waste management, and air quality. SCAG has adopted a Regional Comprehensive Plan and Guide (RCPG) to provide direction to local governments in addressing regional issues such as population growth for the six-county region (SCAG 1996). The RCPG includes policy guidance with respect to such issues as mobility, quality of life, equity, air quality, and water quality.

A.8.5 Regional Comprehensive Plan and Guide

SCAG undertakes regional planning efforts for the six-county SCAG region, which includes Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial counties. SCAG's efforts focus on developing strategies to minimize traffic congestion, protect environmental quality, and provide adequate housing throughout the SCAG region. SCAG's Regional Comprehensive Plan and Guide (RCPG) sets forth broad goals and objectives for participating jurisdictions and agencies.

Pasadena is a member of the San Gabriel Valley Council of Governments (SGVCOG), a subregion of SCAG, made up of the 30 cities in the San Gabriel Valley. SGVCOG's mission is to "ensure our Valley's 'fair share' of scarce federal, state, and local resources by fostering consensus among cities in the San Gabriel Valley regarding policies and programs that address issues relating to land use, air quality, transportation, solid waste and other matters deemed essential to our cities." SCVCOG's current priorities include: ensure that SCAG's Regional

Transportation Plan (RTP) update and Metropolitan Transportation Authority's (MTA) Long Range Plan update include SGVCOG adopted high priority projects; support the Alameda Corridor-East (ACE) Construction Authority's efforts to implement the ACE Project and work with local, state and federal officials to obtain needed funding; coordinate and support Metro Gold Line Foothill Extension to Montclair; ensure adoption of the Governor's Congestion Management Program; and work towards the completion of I-710.

Open Space Chapter Ancillary Policies: RCPG goals for regional open space goals include the following:

9.02 Increase the accessibility to open space lands for outdoor recreation.

9.03 Promote self-sustaining regional recreation resources and facilities.

A.9 Noise and Vibration

A.9.1 Federal Guidelines

Noise

The federal Noise Control Act of 1972 (Public Law 92-574) directed EPA to promote an environment which reduce noise pollution to protect the health and welfare.

The federal Department of Housing and Urban Development (HUD) has site acceptability standards for HUD financed or assisted projects. These standards consider a site with an Ldn of 65 dBA or less "acceptable," while those with an Ldn greater than 75 dBA are "unacceptable." With respect to residential and other sensitive uses, the exterior standard of 65 dBA CNEL is generally consistent with the interior standard of 45 dBA CNEL. This is because normal wood frame residential construction usually provides from 12 to 18 dBA of reduction from exterior to interior areas, and a 20 dBA reduction is commonly achieved in new structures.

Vibration

The Federal Transit Administration (FTA) has adopted vibration criteria/guidelines/ recommendations for ground-borne vibration based on the building types that neighbor roadway/transit corridors. Based on the FTA's document "Transit Noise and Vibration Impacts Assessments," (FTA 1995), construction-period vibration levels of 0.2 inch-per-second should be considered as damage threshold criterion for "fragile" buildings and 0.12 inch-per-second for "extremely fragile" historic buildings. These vibration threshold criteria are stated in Peak Particle Velocity (PPV) which is most applicable to construction related vibration sources (i.e., machinery and equipment).

A.9.2 State Guidelines

Noise

The State of California has adopted noise compatibility guidelines for the general land uses planning. The level of acceptability of the noise environment is dependent upon the activity associated with the particular land use. As described by the State of California land use compatibility for community noise environment, an exterior noise environment up to 65 dBA CNEL is normally acceptable for multi-family residential, without special noise insulation requirements. Noise environment between 60 CNEL and 70 CNEL is considered "conditionally acceptable" for multi-family residential. While 75 dBA CNEL is identified as "clearly unacceptable" noise level for all residential uses.

Vibration

There are no adopted State policies or standards for ground-borne vibration. In most circumstances common vibrations related to roadway traffic and construction activities pose no threat to buildings or structures.

Table 0-2 and **Table 0-3**, respectively, provide guidelines for assessing potential vibration impacts with respect to annoyance and building damage, per Caltrans' guidance manual (Caltrans 2004).

Table 0-2: Vibration Annoyance Potential Criteria

Human Response	Maximum PPV, in/sec	
	Transient Sources [a]	Continuous / Frequent Intermittent Sources [b]
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.90	0.10
Severe	2.00	0.40

Notes:

a. Transient sources create a single isolated vibration, such as blasting or drop balls

b. Continuous/Frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 0-3: Vibration Damage Potential Threshold Criteria

Human Response	Maximum PPV, in/sec	
	Transient Sources [a]	Continuous / Frequent Intermittent Sources [b]
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.2	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial / commercial buildings	2.0	0.5

Notes:

a. Transient sources create a single isolated vibration, such as blasting or drop balls

b. Continuous/Frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

A.9.3 City of Pasadena Municipal Code

The following sections of the current City of Pasadena Municipal Code (Title 9, Chapter 9.36) is particularly applicable to this study.

Section 9.36.010 – Declaration of Policy

It is declared to be the policy of the city to prohibit unnecessary, excessive and annoying noises from all sources subject to its police power. At certain levels noises are detrimental to the health and welfare of the citizenry and in the public interests shall be systematically proscribed. (Ord. 5118 § 1.00, 1973)

Section 9.36.030 – Presumed Ambient Noise Levels

This section specifies the presumed ambient noise levels, as shown in table below. The noise standards are specified in A-weighted decibels (dBA) and are in terms of average (leq) over time period of 15 minute. Where the sound alleged to be offending is of a type or character set forth below, the following values shall be added to the sound level measurement of the offending noise:

1. *Except for noise emanating from any electrical transformer or gas metering and pressure control equipment existing and installed prior to the effective date of the ordinance codified herein, any steady audible tone: + 5;*
2. *Repeated impulsive noise: + 5;*
3. *Noise occurring more than 5 but less than 15 minutes per hour: - 5;*
4. *Noise occurring more than 1 but less than 5 minutes per hour: - 10;*
5. *Noise occurring less than 1 minute per hour: -20.*

Noise District	City of Pasadena Presumed Ambient Noise Levels[a], dBA (L_{eq})	
	Daytime (6 a.m. to 11 p.m.)	Nighttime (11 p.m. to 6 a.m.)
I	50	50
II	55	45
III	60	50

Notes: a. Per City's Code, ambient noise levels shall be the higher of actual measured ambient noise level or the presumed ambient noise level as determined from the table above

Section 9.36.100 – Machinery, Equipment, Fans and Air Conditioning

Except for emergency work, as defined in this chapter it is unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than 5 decibels. (Ord. 5118 § 2.50, 1973)

Section 9.36.110 – Construction Projects

A. No person shall operate any pile driver, power shovel, pneumatic hammer, derrick power hoist, forklift, cement mixer or any other similar construction equipment within a residential district or within a radius of 500 feet therefrom at any time other than as listed below:

1. From 7:00 a.m. to 7:00 p.m. Monday through Friday;
2. From 8:00 a.m. 5:00 p.m. on Saturday;
3. Operation of any of the listed construction equipment is prohibited on Sundays and Holidays.

B. No person shall perform any construction or repair work on buildings, structures or projects within a residential district or within a radius of 500 feet therefrom in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance at any time other than as listed below:

1. From 7:00 a.m. to 7:00 p.m. Monday through Friday;
2. From 8:00 a.m. to 5:00 p.m. on Saturday;
3. Performance of construction or repair work is prohibited on Sundays and Holidays.

C. The prohibition against construction on Sundays and Holidays as set forth in subsection B of this section shall not apply under either of the following conditions:

1. The construction is actually performed by an individual who is the owner or leasor of the premises and who is assisted by not more than two individuals;
2. The person performing the construction shall have provided the building official with a petition which indicates the consent of 65% of the households residing within 500 feet of the construction site and the unanimous consent of the households adjacent to the construction site. Said petition shall be on a form promulgated by said building official and shall be accompanied by a fee, the amount of which shall be established by resolution by the city council.

D. The prohibitions of this section shall not apply to the performance of emergency work as defined in Section 9.36.020.

E. For purposes of this section, holidays are New Year=s Day, Martin Luther King Jr. Day, Lincoln=s Birthday, Washington=s Birthday, Memorial Day, Independence Day, Labor Day, Veteran=s Day, Thanksgiving Day, Day after Thanksgiving, and Christmas. (Ord. 6993 §§ 1--4, 2004; Ord. 6132 § 12, 1986: Ord. 5118 § 3.00, 1973)

Section 9.36.120 – Construction Equipment

It is unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 85 dBA when measured within a radius of 100 feet from such equipment. (Ord. 5118 § 3.10, 1973)

Section 9.36.130 – Emergency Construction Exempted

Construction activities for emergency work are exempted herefrom. (Ord. 5118 § 3.20, 1973)

A.9.4 City of La Cañada Flintridge Municipal Code

The following sections of the current City of La Cañada Flintridge Municipal Code (Title 5, Chapter 5.36) is particularly applicable to this study.

Section 5.36.010 – Construction noise prohibited when.

Except as otherwise provided in this chapter, a person may perform any construction or repair work of any kind upon any building or structure, or perform any earth excavating, filling or moving, where any of the foregoing entails the use of any air compressors; jack-hammers; power-driven drill, riveting machine; excavator, diesel-powered truck, tractor or other earth moving equipment; hand hammers on steel or iron; or any other machine, tool, device or equipment which makes loud noises exceeding a decibel level of sixty-five (65) dBA as measured from any adjacent residential property line during the following hours:

During Standard Time:

Monday – Friday:	Seven a.m. to six p.m.
Saturday:	Nine a.m. to five p.m.
Sundary:	None.

During Daylight Savings Time:

Monday – Friday:	Seven a.m. to seven p.m.
Saturday:	Nine a.m. to five p.m.
Sundary:	None.

(Ord. 311 § 2, 2000: Ord. 197 § 2 (part), 1991)

5.36.020 Work performed with permission of director of community development.

The provisions of Section 5.36.010 do not apply to any person who performs the construction, repair, or excavation work involved pursuant to the express written permission of the director of community development to perform such work at times prohibited in Section 5.36.010. Upon receipt of an application in writing therefore, stating the reasons for the request and the facts upon which such reasons are based, the director of community development may grant such permission if he finds that:

A. The work proposed to be done is necessary to protect the health, safety or public welfare; or

B. Hardship or injustice, or unreasonable delay, would result from the interruption thereof during the hours and days specified in Section 5.36.010; or

C. The building or structure involved is devoted or intended to be devoted to a use immediately incident to public defense. (Ord. 197 § 2 (part), 1991)

A.10 Public Services and Utilities

There are no regulations directly applicable to public services.

A.10.1 Local Policies and Regulations

LA County Code: Title 20 Utilities

- **20.24.010 Title for citation.**

The ordinance codified in Division 2 of this Title 20 shall be known as the "sanitary sewer and industrial waste ordinance," and may be cited as such. (Ord. 6130 Part 1 § 1001, 1952.)

- **20.24.020 Applicability of Division 2 provisions.**

The provisions of this Division 2 shall apply to the discharge, deposit or disposal of all wastes, including any material which may cause pollution of underground or surface waters, in, upon or affecting the unincorporated territory of the county of Los Angeles; and the design, construction, alteration, use and maintenance of public sewers and house laterals, industrial connection sewers, water pollution control plants, sewage pumping plants, industrial liquid-waste pretreatment plants, dairy screen-chambers, sand and grease interceptors, and appurtenances; the issuance of permits and the collection of fees therefore, and fees to pay the cost of checking plans, inspecting the construction and making record plans of the facilities permitted hereunder; and providing penalties for violation of any of the provisions of this Division 2. (Ord. 8690 § 3 (part), 1964; Ord. 7519 § 1 (part), 1959: Ord. 6982 § 1, 1956: Ord. 6130 Part 1 § 1002, 1952.)

- **20.24.030 Exceptions to Division 2 applicability.**

The provisions of this Division 2 do not apply to any county sanitation district or to any work performed for a county sanitation district, nor do such provisions apply to any municipal water district or county water district that owns and operates public sanitary sewerage facilities within its boundaries, nor to any work performed for such district. (Ord. 9119 § 1 (part), 1966: Ord. 8023 § 1, 1961: Ord. 6130 Part 1 § 1003, 1952.)

City of Pasadena General Plan Public Services Element

Goal:

The continued provision of a high level of public services which adds to the quality of life in the City and increases its attractiveness.

Objectives:

4. Long range planning of public utilities to enable the City to take advantage of new energy options or participate in regional resource development programs.

5. High level of maintenance of existing facilities.

City of Pasadena Zoning Code Article 4

17.40.190 - Underground Utilities

Proposed development shall provide for the undergrounding of utility facilities (e.g., cable television, data network, electrical, telephone, and similar distribution lines providing direct service to the site) in compliance with the following requirements.

1. **Nonresidential development.** All utility facilities shall be installed underground within the site.
2. **Residential development.** All utility facilities on a site being developed with a new dwelling unit, or new construction adding more than 100 square feet to an existing dwelling unit, shall be installed underground within the property lines of the site.
    1. Risers on poles and structures are allowed and shall be provided by the developer or owner from the pole that provides services to the property.

2. Where no developed underground system exists, utility service poles may be placed on the rear of the property to be developed only to terminate underground facilities.

3. The developer or owner is responsible for complying with the requirements of this Section and shall make the necessary arrangements with the affected utility providers for the installation of the facilities.

4. The requirements of this Subsection shall not apply when the cost of placing the services underground exceeds the cost of construction of the new dwelling unit or the new construction.

3. **Exemptions.** Unless otherwise required by any provision of the Municipal Code, a development site shall not be subject to the requirements of this Section if, as of the date of filing of a Building Permit application:

1. The utility lines serving the site are located aboveground, and there are no underground facilities within 100 feet of the site, and no plan to install the facilities within ten years of that date are either in the current budget or other authorized plan of the Pasadena Water and Power Department; or

2. The site is not within an underground utility district approved by the Council.

A.10.2 La Canada Flintridge Municipal Code

10.04.060 Other exceptions.

In any resolution adopted pursuant to Section 10.04.030 hereof, the city may authorize any or all of the following exceptions:

A. Any municipal facilities or equipment installed under the supervision and to the satisfaction of the city engineer;

B. Poles, or electroliers used exclusively for street lighting;

C. Overhead wires (exclusive of supporting structures) crossing any portion of a district within which overhead wires have been prohibited, or connecting to buildings on the perimeter of a district, when such wires originate in an area from which poles, overhead wires and associated overhead structures are not prohibited;

D. Poles, overhead wires and associated overhead structures used for the transmission of electric energy at nominal voltages in excess of thirty-four thousand five hundred (34,500) volts;

E. Overhead wires attached to the exterior surface of a building by means of a bracket or other fixture and extending from one location on the building to another location on the same building or to an adjacent building without crossing any public street;

F. Antennae, associated equipment and supporting structures, used by a utility for furnishing communication services;

G. Equipment appurtenant to underground facilities, such as surface-mounted transformers, pedestal-mounted terminal boxes and meter cabinets, and concealed ducts;

H. Temporary poles, overhead wires and associated overhead structures used or to be used in conjunction with construction projects. (Ord. 27 (part), 1977)

9.16.010 Adopted.

Except as hereinafter may be provided, the 1989 Edition of Title 20 of the Los Angeles County Code regulating sanitary sewers and industrial waste is adopted and shall be and become the sanitary sewer and industrial waste ordinance of the city of La Cañada Flintridge. (Ord. 234 § 2 (part), 1994)

A.11 Traffic and Transportation

A.11.1 Federal Guidelines

Federal regulations governing transportation facilities and activities do not apply to the environmental analysis of the project because no transportation facilities would be constructed.

A.11.2 State Guidelines

No highways under the jurisdiction of Caltrans, including freeways and surface streets designated as state highways, would be affected by construction of the proposed project. While portions of the proposed Eastside Well Collector Pipeline would lie beneath Interstate 210, the work would occur within the right-of-way of the City streets and state highway facilities would not be affected. Therefore, there are no state regulations relevant to the proposed project and its construction effects.

A.11.3 Local Guidelines

The Noise Ordinance of the City of Pasadena restricts construction and excavation work in residential areas to the hours of 7 a.m. to 7 p.m. on weekdays and 8 a.m. to 5 p.m. on Saturdays. Under this ordinance, no construction or excavation is permitted on Sundays or national holidays.

The City of Pasadena prohibits lane closures during weekdays from 7 to 9 a.m. and 4 to 6 p.m. on all arterials and most collector streets. The streets where the project would require in-street construction that are affected by this prohibition, this includes Rosemont Avenue, Mountain Street, Craig Avenue (from Mountain Street to Villa Street), Foothill Boulevard, Walnut Street, Sierra Madre Boulevard, Sierra Madre Villa Avenue, and San Gabriel Boulevard.

The City of Pasadena has designated specific truck routes for vehicles over three tons. The City of Pasadena does provide an exemption for the construction or installation of any public improvement to vehicles owned by a public utility or a licensed contractor. Typically these trucks would not deviate from the truck routes except to access a specific work site.

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