Mitigated Negative Declaration
Appendices

Figueroa Property Remediation and Park Project

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

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APPENDIX A
Air Quality Assessment

Technical Memorandum

TO: Fareeha Kibriya, AICP, LEED AP
AECOM

FROM: Terry A. Hayes Associates Inc.

DATE: June 9, 2021

RE: Figueroa Property Remediation and Park Project – Air Quality Assessment

Introduction

Terry A. Hayes Associates Inc. (TAHA) completed an Air Quality for the Figueroa Property Remediation and Park Project (proposed project) in accordance with the provisions of the California Environmental Quality Act (CEQA) Statutes and Guidelines. This Assessment is organized as follows:

- Introduction
- Project Description
- Air Quality Topical Information
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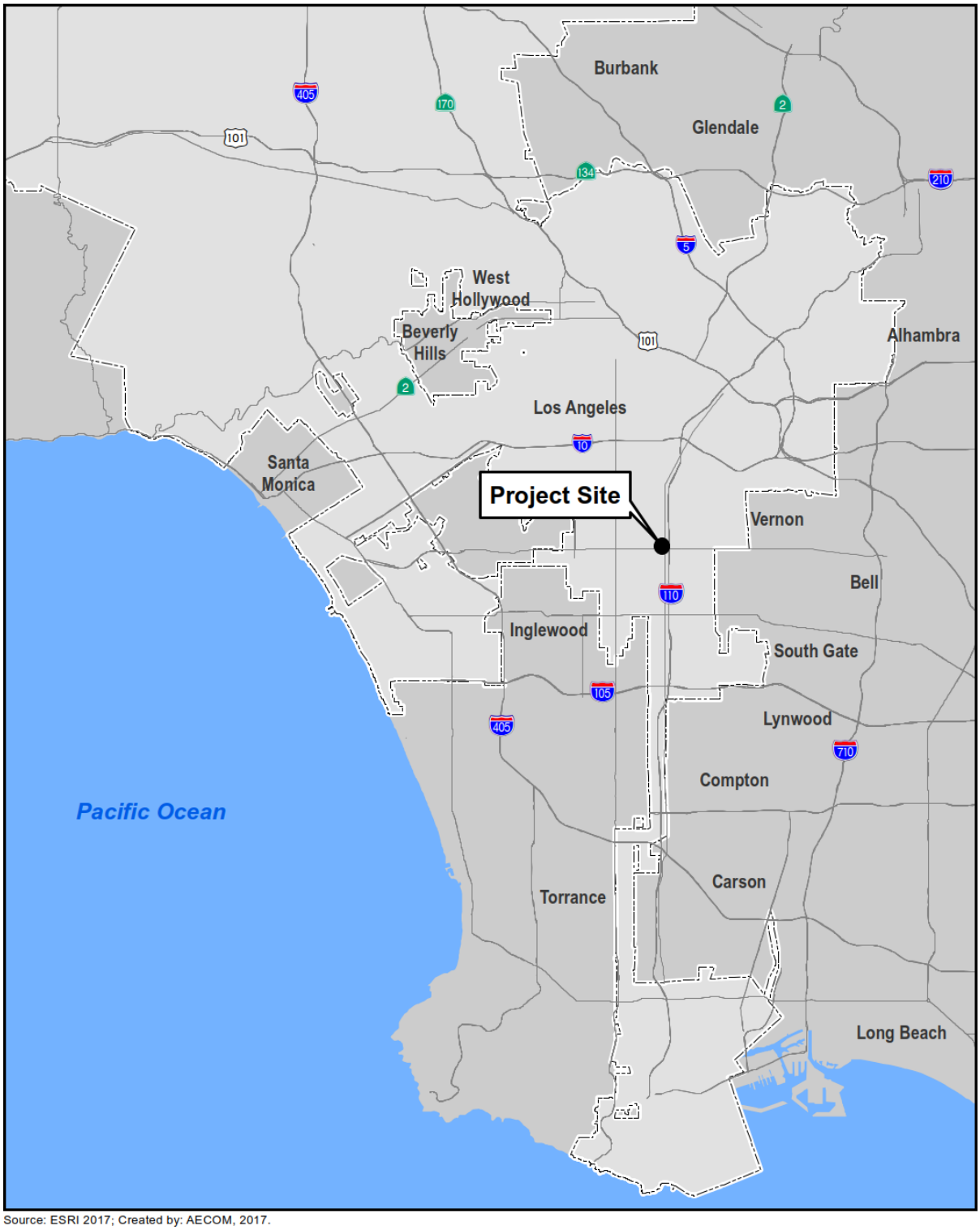
Project Description

The Los Angeles Department of Water and Power (LADWP) proposes to enter into a long-term lease agreement with the Los Angeles Department of Recreation and Parks (LARAP) for an approximately 0.5-acre vacant LADWP-owned property (the Figueroa property), which would then be developed as a neighborhood park by an independent non-profit community organization under agreement with LARAP. The park would then become a facility operated and maintained by LARAP.

The approximately 20,000 square-foot Figueroa property is located in Los Angeles at 5800 South Figueroa Street, on the southeast corner of Figueroa Street and West 58th Street. It is immediately bounded on the south by a railroad right-of-way, which is adjacent to Slauson Avenue. A filling station is located on the south side of Slauson Avenue. On the west, the property is bounded by Figueroa Street with medical offices and a vacant lot located on the west side of Figueroa Street. On the north, the property is bounded by West 58th Street with the LADWP electrical Distributing Station Number 4 located on the north side of West 58th Street. To the east, the property abuts a single-family residential property. The vicinity around the property is an urban area consisting primarily of single-family residences and commercial uses with some multi-family housing. The Harbor Freeway (Interstate 110) is located approximately 250 feet east of the property. **Figure 1** depicts the regional location and **Figure 2** depicts the vicinity of the Figueroa property.



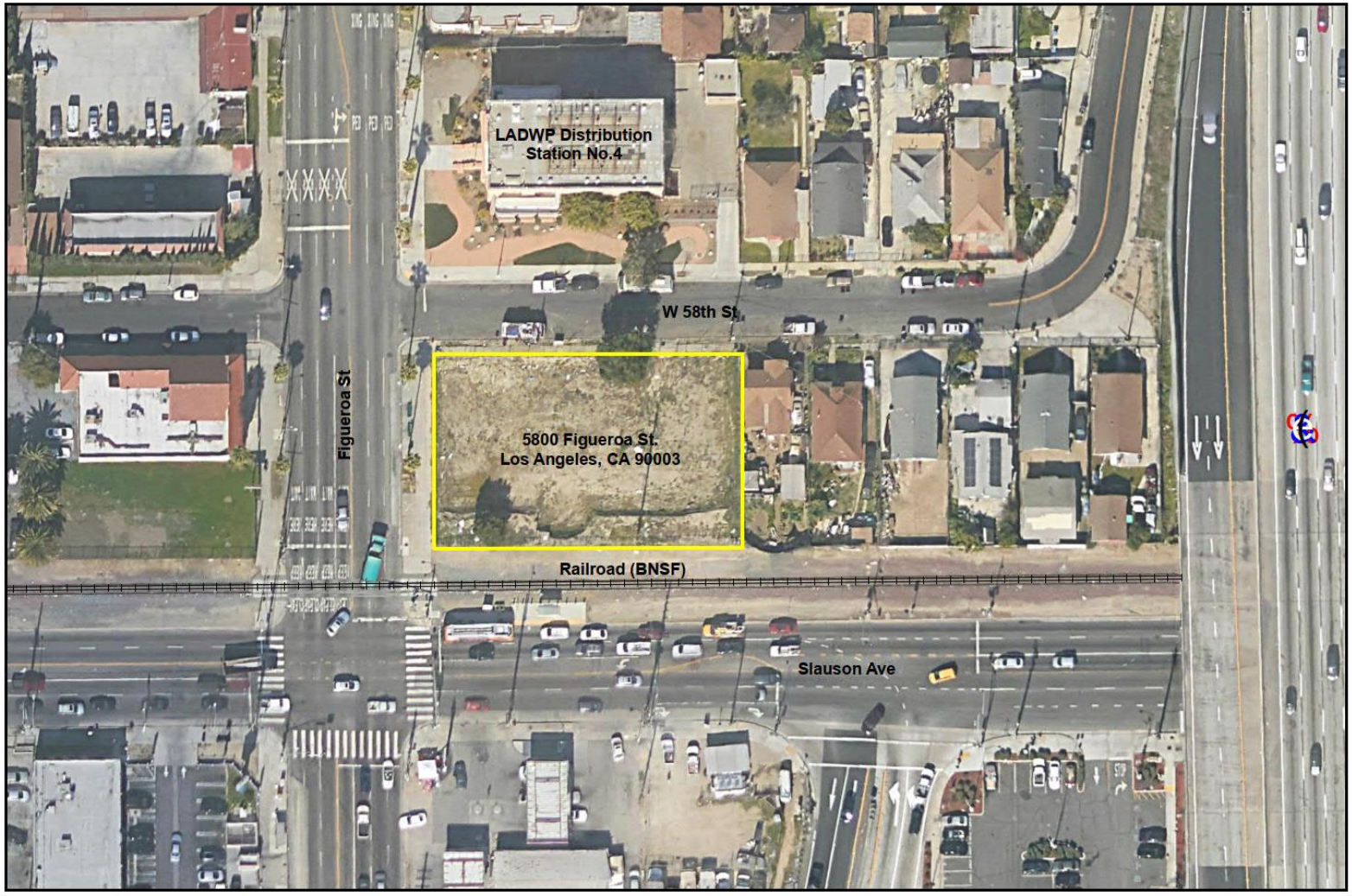
Source: ESRI 2017; Created by: AECOM, 2017.

0 3 6 Miles

City of Los Angeles Boundary

Figure 1

Regional Location Map



Source:Google Earth Image 2021

0 40 80 Feet

Figueroa Property

Figure 2

Figueroa Property

To prepare the property for park development, LADWP would complete the cleanup of the remaining contaminated soil to achieve the standards for California Department of Toxic Substances Control (DTSC) Human Health Risk Assessment (HERO) Note 3 residential screening levels. For contaminants where a DTSC screening level has not been established, the cleanup would achieve United States Environmental Protection Agency (USEPA) regional screening levels for residential soil. The remediation of the property would involve the use of an excavator to remove contaminated soil and a loader to load the soil onto dump trucks, which would haul the soil to a landfill approved to accept such material. The volume of the exported material that would need to be trucked off site is estimated at 3,380 loose cubic yards and would require approximately 188 truck trips to haul the soil. The soil would be hauled to a Class I landfill, which is a landfill approved by the State of California to accept, treat as necessary, and store contaminated soil. The closest Class I landfill to the Figueroa property is Clean Harbors Buttonwillow, which is located approximately 144 miles north of the property and has the capacity to accept the volume of contaminated soil to be removed. Based on past cleanup efforts, it is estimated that approximately 20 truckloads a day could be removed from the property and transported to Clean Harbors Buttonwillow. It would take approximately 10 workdays to remove the contaminated soil from the property. However, due to unforeseen delays, the actual number of workdays required may be greater.

The project site would be backfilled with approximately 5,850 loose cubic yards of clean imported soil, which would require approximately 325 truck trips to deliver the import soil to the property. Once the soil is dumped at the site, it would be spread by a loader and/or small bulldozer. The soil would be compacted using a vibratory compactor in excavated pits within the footprints of the former pump station building, water reservoir, or fuel storage tank. A roller compactor, small bulldozer, and/or loader across the wider site. It is assumed that approximately two truckloads could be dumped and spread across the property every hour, which would generate an average of approximately 16 truck trips per day. It is anticipated that the backfill material would be available within 25 miles of the project site. At 16 truckloads per day, it would take approximately 20 workdays backfill the property. However, due to unforeseen delays, the actual number of workdays required may be greater. It is therefore anticipated that the entire site preparation effort (both the removal of contaminated soil and the importation and placement of clean soil) would take approximately two months. It is anticipated to begin in mid-winter 2022. Approximately ten on-site personnel would be required throughout construction activities.

Although actual design of the park is yet to be accomplished, it is anticipated that it would include pathways, seating elements, shade structures, exercise stations, and children's play equipment. The park would be entirely enclosed by a perimeter fence, allowing it to be physically secured during non-operating hours (between sunset and sunrise). The park is anticipated to serve the immediate surrounding community and would, therefore, not include any vehicle parking.

The precise schedule for park construction has not been determined, but for environmental impact analysis purposes, it has been assumed it would begin in early to mid-spring 2022, right after completion of the site preparation task. This schedule represents a conservative assumption related to the assessment of air quality impacts because air pollutant emissions models presume reduced emissions factors for on-road vehicles and off-road equipment as time passes and control technologies improve.

The construction of the park would involve the use of minimal construction equipment, which would include a skid-steer loader(s) and forklift(s) for fine grading and unloading and placing of heavier elements. No more than one to two truck trips in a given day would be required to deliver materials, including concrete. Fewer than ten on-site construction personnel would be required. It is anticipated that construction of the park would take approximately six months to complete.

Post-construction, the park would be open every day throughout the year from sunrise to sunset but would be secured by locked gates at night. Since no parking would be provided, most visitors are anticipated to access the site from the surrounding neighborhood by foot.

The proposed project would implement Rule 403 dust control measures required by the South Coast Air Quality Management District (SCAQMD), which would include the following:

- Water shall be applied to exposed surfaces at least two times per day to prevent generation of dust plumes.
- All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
- Construction activity on exposed or unpaved dirt surfaces shall be suspended when wind speed exceeds 25 miles per hour.
- Ground cover in disturbed areas shall be replaced in a timely fashion when work is completed in the area.
- A community liaison shall be identified to address concerns regarding on-site construction activity including resolution of issues related to dust generation.
- Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more).
- Sweep streets at the end of the day if visible soil is carried onto adjacent public paved roads. If feasible, use water sweepers with reclaimed water.

Air Quality Topical Information

Air quality is typically characterized by ambient air concentrations of seven specific pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to health and welfare of the general public. These specific pollutants, known as criteria air pollutants, are pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. These pollutants are common byproducts of human activities and have been documented through scientific research to cause adverse health effects. The federal ambient concentration criteria are known as the National Ambient Air Quality Standards (NAAQS), and the California ambient concentration criteria are referred to as the California Ambient Air Quality Standards (CAAQS). Federal criteria air pollutants include ground-level ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), respirable particulate matter ten microns or less in diameter (PM_{10}), fine particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), and lead. In addition to the federal criteria pollutants, the state regulates visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Air toxics are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. Air toxics are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Air toxics include, but are not limited to, diesel PM, metals, gases absorbed by particles, and certain vapors from fuels and other sources.

Regulatory Framework

The following discussion includes relevant regulations, policies, and programs that have been adopted by federal, state, and local agencies to protect air quality and public health.

Federal

The Clean Air Act (CAA) governs air quality at the national level and the USEPA is responsible for enforcing the regulations provided in the CAA. Under the CAA, the USEPA is authorized to establish NAAQS that set protective limits on concentrations of air pollutants in ambient air. Enforcement of the NAAQS is required under the 1977 CAA and subsequent amendments. As required by the CAA, NAAQS have been established for the seven criteria air pollutants: O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and Pb. These pollutants are common byproducts of human activities and have been documented through scientific research to cause adverse health effects. The CAA grants the USEPA authority to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS concentrations have been met on a regional scale relying upon air monitoring data from the most recent three-year period. The NAAQS are summarized in **Table 1**.

TABLE 1: AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS DESIGNATIONS

Pollutant	Averaging Period	California		Federal	
		Standards (CAAQS)	Attainment Status	Standards (NAAQS)	Attainment Status
Ozone (O_3)	1-Hour Average	0.09 ppm (180 µg/m^3)	Nonattainment	--	--
	8-Hour Average	0.070 ppm (137 µg/m^3)	Nonattainment	0.070 ppm (137 µg/m^3)	Pending – Nonattainment
Carbon Monoxide (CO)	1-Hour Average	20 ppm (23 mg/m^3)	Attainment	35.0 ppm (40 mg/m^3)	Attainment
	8-Hour Average	9.0 ppm (10 mg/m^3)	Attainment	9.0 ppm (10 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	1-Hour Average	0.18 ppm (338 µg/m^3)	Attainment	0.10 ppm (188 µg/m^3)	Attainment
	Annual Arithmetic Mean	0.03 ppm (57 µg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
Sulfur Dioxide (SO_2)	1-Hour Average	0.25 ppm (655 µg/m^3)	Attainment	0.075 ppm (196 µg/m^3)	Pending – Attainment
	24-Hour Average	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (365 µg/m^3)	Attainment
	Annual Arithmetic Mean	--	--	0.030 ppm (80 µg/m^3)	Attainment
Respirable Particulate Matter (PM_{10})	24-Hour Average	50 µg/m^3	Nonattainment	150 µg/m^3	Attainment (Maintenance)
	Annual Arithmetic Mean	20 µg/m^3	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-Hour Average	--	--	35 µg/m^3	Nonattainment
	Annual Arithmetic Mean	12 µg/m^3	Nonattainment	12.0 µg/m^3	Nonattainment
	30-day Average	1.5 µg/m^3	Attainment	--	--

Lead (Pb)	Calendar Quarter	--	--	1.5 µg/m^3	Unclassified/ Attainment
	Rolling 3-Month Average	--	--	0.15 µg/m^3	Unclassified/ Attainment
Sulfates	24-Hour Average	25 µg/m^3	Attainment	**No Federal Standards**	
Hydrogen Sulfide	1-Hour Average	0.03 ppm (42 µg/m^3)	Attainment		
Vinyl Chloride	24-Hour Average	0.01 ppm (26 µg/m^3)	Attainment		

CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; µg/m^3 = micrograms per cubic meter.
SOURCE: SCAQMD, *NAAQS and CAAQS Attainment Status for South Coast Air Basin*, February 2016.

State

Air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CCAA is administered by the California Air Resources Board (CARB) at the state level and by the air quality management districts at the regional and local levels. The CCAA requires all areas of the state to achieve and maintain the CAAQS by the earliest feasible date, which is determined in the most recent State Implementation Plan (SIP) based on existing emissions and reasonably foreseeable control measures that will be implemented in the future. The CAAQS are also summarized in **Table 1**, which also presents the attainment status designations for the Los Angeles County portion of the South Coast Air Basin (Basin).

The CARB's statewide comprehensive air toxics program was established in the early 1980s. The Toxic Air Contaminant Identification and Control Act created California's program to reduce exposure to air toxics. Under the Toxic Air Contaminant Identification and Control Act, the CARB is required to prioritize the identification and control of air toxics emissions. In selecting substances for review, the CARB must consider criteria relating to the risk of harm to public health, such as amount or potential amount of emissions, manner of and exposure to usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community.

Regional

The 1977 Lewis Air Quality Management Act established the SCAQMD in order to coordinate air quality planning efforts throughout Southern California. The SCAQMD has jurisdiction over a total area of 10,743 square miles, consisting of the Basin—which comprises 6,745 square miles including Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties—and the Riverside County portion of the Salton Sea and Mojave Desert Air Basins. The proposed project would be located in the neighborhoods of West Hills and Woodland Hills, which are situated in the Basin portion of Los Angeles County and are within the jurisdiction of the SCAQMD.

The SCAQMD is tasked with preparing regional programs and policies designed to improve air quality within the Basin, which are assessed and published in the form of the Air Quality Management Plan (AQMP). The AQMP is updated every four years to evaluate the effectiveness of the adopted programs and policies and to forecast attainment dates for nonattainment pollutants to support the SIP based on measured regional air quality and anticipated implementation of new technologies and emissions reductions. The most recent publication is the 2016 AQMP, which is intended to serve as a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, and includes available, proven, and cost-effective strategies to pursue multiple goals in promoting reductions in greenhouse gas (GHG) emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O_3 standard, the 2012 annual $PM_{2.5}$ standard, and the 2006 24-hour $PM_{2.5}$ standard. The 2016 AQMP acknowledged that the most significant air quality challenge in the Basin is the reduction of nitrogen oxides (NO_X) emissions sufficient to meet the upcoming ozone standard deadlines. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approach attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the NAAQS are not met by the established date.

The AQMP also includes an element that is related to transportation and sustainable communities planning. Pursuant to California Health and Safety Code Section 40450, the Southern California Association of Governments (SCAG) has the responsibility of preparing and approving the portions of the AQMP relating to regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. The analysis incorporated into the 2016 AQMP is based on the forecasts contained within the SCAG 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). SCAG has approved the 2020-2045 RTP/SCS, although these growth projections have not been incorporated by SCAQMD into the current AQMP.

The SCAQMD has also established various rules to manage and improve air quality in the Basin. The proposed project proponent shall comply with all applicable SCAQMD Rules and Regulations pertaining to construction activities, including, but not limited to:

- Rule 402 (Nuisance) states that a person should not emit air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403 (Fugitive Dust) controls fugitive dust through various requirements including, but not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, limiting vehicle speeds on unpaved roads to 15 miles per hour, and maintaining effective cover over exposed areas. Rule 403 also prohibits the release of fugitive dust emissions from any active operation, open storage piles, or disturbed surface area beyond the property line of the emission source and prohibits particulate matter deposits on public roadways.

Existing Setting

The Basin is subject to high levels of air pollution due to the immense magnitude of emissions sources and the combination of topography, low mean atmospheric mixing height, and abundant sunshine. Although the Basin has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, there is a limited capacity to disperse air contaminants horizontally. The mountains and hills surrounding the Basin contribute to the variation of rainfall, temperature, and winds throughout the region. During the spring and early summer, pollution produced during any one day is typically blown out of the Basin through mountain passes or lifted by warm, vertical currents adjacent to mountain slopes. The vertical dispersion of air pollutants in the Basin is limited by temperature inversions in the atmosphere close to the Earth's surface. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants become more concentrated in urbanized areas with pollution sources of greater magnitude.

Air quality within the Basin region is characterized by concentrations of air pollutants measured at 37 monitoring stations located throughout the SCAQMD jurisdiction. The Basin is divided geographically into 38 source receptors areas (SRAs), each of which contains an air quality monitoring station except for SRA 7. The SRA boundaries were drawn based on proximity to the nearest air monitoring station, the local emission inventories, and surrounding topography. The proposed project site is located at the intersect of three SRAs. They include SRA 1 (Central Los Angeles County), SRA 3 (Southwest Los Angeles County Coastal), and SRA 12 (South Central Los Angeles County). Air quality conditions at the proposed project site are best represented by monitoring data collected within SRA 1 at the North Main Street monitoring station in downtown Los Angeles due to urban density and proximity of the monitor to Interstate 10.

Table 2 displays the air quality data statistics for pollutants measured at the North Main Street station during the monitoring period 2017–2019, including the maximum pollutant concentrations and frequencies of exceeded air quality standards in each year. The SCAQMD has not published data for 2020 or 2021. Ambient concentrations of O_3 and $PM_{2.5}$ exceeded the corresponding NAAQS and CAAQS numerous times over the three-year period. Additionally, annual concentrations of PM_{10} exceeded the CAAQS in all three years. The data demonstrate the ongoing challenges that the region faces with regards to improving air quality and bringing the Basin into attainment of the federal and state standards.

TABLE 2: SUMMARY OF AMBIENT AIR QUALITY DATA IN THE PROJECT AREA

Pollutant	Air Quality Standards	Project Area Statistics	2017	2018	2019
Ozone (O_3)	1-hr Average (ppm)	Maximum 1-hr Concentration	0.116	0.098	0.085
	State Standard: 0.090 ppm	Frequency Std. Exceeded	6	2	0
	8-hr Average (ppm)	Maximum 8-hr Concentration	0.086	0.073	0.080
	State Standard: 0.070 ppm	Frequency Std. Exceeded	14	4	2
Nitrogen Dioxide (NO_2)	1-hr Average (ppm)	Maximum 1-hr Concentration	0.081	0.070	0.070
	State Standard: 0.18 ppm	Frequency Std. Exceeded	0	0	0
	National Standard: 0.10 ppm	Frequency Std. Exceeded	0	0	0
Carbon Monoxide (CO)	1-hr Average (ppm)	Maximum 1-hr Concentration	1.9	2.0	2.0
	State Standard: 20.0 ppm	Frequency Std. Exceeded	0	0	0
	National Standard: 35.0 ppm	Frequency Std. Exceeded	0	0	0
	8-hr Average (ppm)	Maximum 8-hr Concentration	1.6	1.7	1.6
	State Standard: 9.0 ppm	Frequency Std. Exceeded	0	0	0
	National Standard: 9.0 ppm	Frequency Std. Exceeded	0	0	0
Sulfur Dioxide (SO_2)	1-hr Average (ppm)	Maximum 1-hr Concentration	0.006	0.018	0.010
	State Standard: 0.25 ppm	Frequency Std. Exceeded	0	0	0
	National Standard: 0.10 ppm	Frequency Std. Exceeded	0	0	0
Respirable Particulate Matter (PM_{10})	24-hr Average (µg/m^3)	Maximum 24-hr Concentration	96	81	94
	State Standard: 50 µg/m^3	Frequency Std. Exceeded	40	31	15
	National Standard: 150 µg/m^3	Frequency Std. Exceeded10	0	0	0
	Annual Average (µg/m^3)	Annual Avg. Concentration	27	34	34
	State Standard: 20 µg/m^3	Annual Std. Exceeded?	Yes	Yes	Yes
Fine Particulate Matter ($PM_{2.5}$)	24-hr Average (µg/m^3)	Maximum 24-hr Concentration	62	65	44
	National Standard: 35 µg/m^3	Frequency Std. Exceeded	6	6	1
	Annual Average (µg/m^3)	Annual Avg. Concentration	16	16	11
	State Standard: 12 µg/m^3	Annual Std. Exceeded?	Yes	Yes	No
	National Standard: 12 µg/m^3	Annual Std. Exceeded?	Yes	Yes	No

SOURCE: SCAQMD, *Historical Data by Year – Air Quality Data Tables (2017, 2018, 2019)*, https://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year, accessed May 20, 2021.

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The CARB has identified the following groups who are most likely to experience adverse health effects due to exposure to air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, land uses that constitute sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The SCAQMD has established 500 meters, or 1,640 feet, as the distance for assessing localized air quality impacts.

The proposed project is located in an urban environment and many sensitive receptors are located near the project site. These include residences, daycare facilities, and religious institutions. Land uses in the immediate vicinity of the project site primarily include single-family residences and commercial uses with some multi-family housing. A single-family residence abuts the project site to the east. This is the nearest sensitive land use to the project site and the land use likely most affected by project activities. This land use is also located downwind of the project site, with winds in the area primarily blowing from west to east.

Significance Thresholds

This Assessment was undertaken to determine whether construction or operation of the proposed project would have the potential to result in significant environmental impacts related to Air Quality in the context of the Appendix G Environmental Checklist criteria of the CEQA Statute and Guidelines. Implementation of the proposed project may result in a significant environmental impact related to air quality if the proposed project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; and/or,

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SCAQMD published a CEQA Air Quality Handbook to guide air quality assessments for CEQA projects within its jurisdiction. SCAQMD methodologies recommend that air pollutant emissions be analyzed in both regional and local contexts. Regional emissions refer to all emissions that would be associated with construction and operation of a project, while localized emissions refer to only those emissions that would be produced by sources located on the project site. To assist in the assessment of air pollutant emissions under impact criteria a), b), and c) above, the SCAQMD established maximum daily threshold values for air pollutant emissions from CEQA projects within the Basin. The mass daily thresholds were derived using regional emissions modeling techniques to prevent the occurrence of air quality violations that would obstruct implementation of the regional AQMP and hinder efforts to improve regional air quality.

Table 3 shows regional and localized significance thresholds for volatile organic compounds (VOC), NO_X, CO, sulfur oxides (SO_X), and particulate matter (PM_{10} and $PM_{2.5}$). The localized air quality significance thresholds are specific to SRA 1 for a construction site up to one acre with sensitive receptors within 80 feet (approximately 25 meters) and were obtained from the SCAQMD Localized Significance Threshold (LST) guidance document. The LST methodology document contains SRA-specific values for maximum allowable on-site emissions (i.e., construction equipment exhaust and fugitive dust) during construction based on locally monitored air quality, the size of maximum daily disturbed area, and the proximity of sensitive receptors. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST values for a one-acre project site having sensitive receptors within 80 feet (approximately 25 meters) of the project site boundary in SRA 1.

TABLE 3: SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS – MASS DAILY EMISSIONS						
Pollutant	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
CONSTRUCTION						
Regional Threshold (lbs/day)	75	100	550	150	150	55
Localized Threshold (lbs/day)	--	74	680	--	5	3
OPERATIONS						
Regional Threshold (lbs/day)	55	55	550	150	150	55
Localized Threshold (lbs/day)	--	74	680	--	2	1
Note: LST values selected for one-acre daily disturbance based on equipment inventory and 25-meter receptor distance in SRA 1. **SOURCE**: SCAQMD, 2015; SCAQMD, 2009.						

Regarding substantial pollutant concentrations, a significant air quality impact would occur if the proposed project resulted in a residential carcinogenic risk above 10 excess cancers per million, or an acute hazard index (HI) equal to or greater than 1.0.

Methodology

The air quality analysis conducted for the proposed project is consistent with the methods described in the SCAQMD CEQA Air Quality Handbook (1993 edition), as well as the updates to the CEQA Air Quality Handbook, as provided on the SCAQMD website. The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod, version 2016.3.2) as a tool for quantifying emissions of air pollutants that will be generated by constructing and operating development projects under CEQA. CalEEMod contains an interface for entering project information related to land use type, construction schedule, construction equipment and personnel inventories, operational elements, and mitigation measures. The detailed CalEEMod output files disclosing estimated air pollutant emissions during construction of the proposed project can be found in the Appendix.

Refer to the Project Description for a discussion of construction methods, including truck trips, equipment use, and workers needed for each construction phase. Equipment activity inventories were prepared using the information in the project description (see Appendix). Operational emissions generated by park activities would be negligible and are addressed qualitatively.

The SCAQMD recommends that air pollutant emissions generated by construction activities be assessed for potentially significant air quality impacts at regional and local scales. Regional emissions include air pollutant emissions from all sources associated with construction activities, while localized emissions refer specifically to those emissions generated by sources on the project site. Maximum daily emissions were quantified for each construction activity based on the number and type of equipment required and daily hours of use, in addition to vehicle trips to and from the project site. The CalEEMod model provides regionally-specific default values for daily equipment usage rates and worker trip lengths, as well as emissions factors for heavy duty equipment and passenger vehicles that have been derived by the CARB through extensive air quality investigations and surveys. The default values were used in conjunction with project-specific information to determine reasonable estimates of daily construction activities and associated emissions.

Localized air pollutant emissions from construction activities were analyzed in accordance with the SCAQMD LST methodology. The LST methodology was devised to prevent small-scale hot spot concentrations of air pollutants from exceeding ambient air quality standards at nearby sensitive receptors. The LST methodology document contains SRA-specific values for maximum allowable on-site emissions (i.e., construction equipment and fugitive dust) during construction based on locally monitored air quality, the size of maximum daily disturbed area, and the proximity of sensitive receptors. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST

values for a one-acre project site having sensitive receptors within 80 feet (approximately 25 meters) of the project site boundary in SRA 1, which are the most conservative values available.

Impact Assessment

a) Would the proposed project conflict with or obstruct implementation of the applicable air quality plan? (Less-Than-Significant Impact)

The following analysis addresses the consistency with applicable SCAQMD and SCAG policies, including the SCAQMD's 2016 AQMP and growth projections within the RTP/SCS. In accordance with the procedures established in the SCAQMD's CEQA Air Quality Handbook, the following criteria are required to be addressed in order to determine the consistency with applicable SCAQMD and SCAG policies:

- Would the proposed project result in any of the following?
  - An increase in the frequency or severity of existing air quality violations;
  - Cause or contribute to new air quality violations; or,
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- Would the proposed project exceed the assumptions utilized in preparing the AQMP?
  - Is the project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
  - Does the project include air quality mitigation measures; or,
  - To what extent is project development consistent with the AQMP land use policies?

The first indicator is assessed by comparing emissions of air pollutants that would be produced by construction and operation of the proposed project to the SCAQMD significance thresholds, both on regional and localized scales. The regional and localized air quality significance thresholds were designed to prevent the occurrence and exacerbation of air quality violations resulting from construction and operation of individual CEQA projects in the context of existing ambient air quality conditions. The second indicator is assessed by determining consistency of permanent operations with population, housing, and employment assumptions that were used in the development of the AQMP and the RTP/SCS.

Construction

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips by construction workers and haul trucks traveling to and from the project site. Fugitive dust emissions would primarily result from site preparation (e.g., clearing, grading, excavation, and loading) activities. NO_X emissions would predominantly result from the use of construction equipment and haul truck trips. The assessment of construction air quality impacts considers all of these emissions sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

It is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with the provisions and best management practices propagated by Rule 403—such as the application of water as a dust suppressant to exposed stockpiles and disturbed ground surfaces—would reduce regional fugitive dust PM_{10} and $PM_{2.5}$ emissions associated with construction activities by approximately 61 percent.

Table 4 presents the maximum daily emissions that would be generated from sources located both on- and off-site. Ground surface disturbance would be minimal outside of the excavation area, and paved roads adjacent to the property would be swept as necessary to reduce dust migration. **Table 4** includes an analysis of the maximum daily emissions compared to the SCAMD regional thresholds. Emissions would remain well below all applicable regional SCAQMD thresholds during construction of the proposed project, and air quality impacts would be less than significant.

TABLE 4: ESTIMATED DAILY EMISSIONS – CONSTRUCTION

Phase and Source Location	Daily Emissions (Pounds Per Day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Site Remediation - Export						
On-Site Emissions	0.4	4.1	5.1	<0.1	0.5	0.4
Off-Site Emissions	2.0	51.2	15.9	0.2	5.5	1.6
Total	***2.4***	***55.3***	***21.1***	***0.2***	***6.0***	***2.0***
Site Remediation - Backfill						
On-Site Emissions	0.3	3.2	3.1	<0.1	0.5	0.3
Off-Site Emissions	0.5	11.9	3.9	<0.1	1.1	0.3
Total	***0.8***	***15.1***	***6.9***	***<0.1***	***1.6***	***0.6***
Park Construction						
On-Site Emissions	0.3	3.3	5.1	<0.1	0.1	0.1
Off-Site Emissions	0.1	0.4	0.8	<0.1	0.3	0.1
Total	***0.4***	***3.8***	***5.9***	***<0.1***	***0.4***	***0.2***
REGIONAL ANALYSIS						
Maximum Regional Daily Emissions	**2.4**	**55.3**	**21.1**	**0.2**	**6.0**	**2.0**
Regional Significance Threshold	75	100	550	150	150	55
Exceed Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Percent (%) of Regional Threshold	***3%***	***55%***	***4%***	***<0.1%***	***4%***	***4%***
LOCALIZED ANALYSIS						
Maximum Localized Daily Emissions	**--**	**4.1**	**5.1**	**--**	**0.5**	**0.4**
Localized Significance Threshold	--	74	680	--	5	3
Exceed Localized Threshold?	**--**	**No**	**No**	**--**	**No**	**No**
Percent (%) of Localized Threshold	**--**	***6%***	***0.8%***	**--**	***10%***	***12%***

Note: Emissions modeling files can be found in the **Appendix**.
SOURCE: TAHA, 2021.

Operations

There is no potential for the proposed project to generate significant air pollutant emissions. The neighborhood park may reduce dust generation at the property by stabilizing the surface with landscaping and paving. Other pollutant emissions may be reduced by providing a walkable option for outdoor activities as opposed to local residents needing to drive to visit a park. Occasional negligible emissions would be generated by site and landscape maintenance activities. Operation of the proposed project would not have any potential to exacerbate the frequency or severity of air quality violations and would result in a less-than-significant air quality impact related to air quality violations.

The second consistency criterion requires that the proposed project not exceed the assumptions in the AQMP, thereby rendering the regional emissions inventory inaccurate. Implementation of the proposed project would not introduce new population, housing, and employment projections for the region would not be affected. The proposed project would not have any potential to result in growth that would exceed the projections incorporated into the AQMP or the RTP/SCS. The proposed project would not interfere with

air pollution control measures listed in the 2016 AQMP and would not conflict with the goals of the City of Los Angeles General Plan Air Quality Element.

b) Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? (Less-Than-Significant Impact)

The Basin is currently designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ under the State standards and nonattainment for O_3 and $PM_{2.5}$ under the federal standards. Therefore, a project may result in a cumulatively considerable air quality impact under this criterion if daily emissions of ozone precursors (VOC and NO_X) or particulate matter (PM_{10} and $PM_{2.5}$) exceed applicable air quality thresholds of significance established by the SCAQMD. The SCAQMD designed the regional mass daily thresholds and LST values to prevent projects from exceeding the ambient air quality standards and potentially resulting in air quality violations that could obstruct or delay implementation of the AQMP. The SCAQMD suggests that if any quantitative air quality significance threshold is exceeded by an individual project during construction activities or operation, that project is considered cumulatively considerable and would be required to implement effective and feasible mitigation measures to reduce air quality impacts.

Conversely, the SCAQMD propagates the guidance that if an individual project would not exceed the regional mass daily thresholds or LST values, then it is generally not considered to be cumulatively significant. This method of impact determination allows for the screening of individual projects that would not represent substantial new sources of emissions in the Basin; it also serves to exclude smaller projects from the responsibility of identifying potentially concurrent new or proposed construction and operation emissions nearby since the incremental contribution to regional emissions is minor. As shown above in **Table 4**, implementation of the proposed project would not exceed any applicable SCAQMD regional mass daily thresholds or LST values during construction or operation. Therefore, the proposed project would not generate cumulatively considerable emissions of ozone precursors or particulate matter and impacts would be less than significant.

c) Would the proposed project expose sensitive receptors to substantial pollutant concentrations? (Less-Than-Significant Impact)

The SCAQMD devised its LST values to prevent the occurrence of localized hot spots of criteria pollutant concentrations at sensitive receptor locations surrounding the project site. The LST values were determined using emissions modeling based on ambient air quality measured throughout the Basin. If maximum daily emissions remain below the LST values during construction activities, it is highly unlikely that air pollutant concentrations in ambient air would reach substantial levels sufficient to create public health concerns for sensitive receptors. As shown in **Tables 4**, maximum daily emissions of criteria pollutants and O_3 precursors from sources located on the project site would remain substantially below applicable LST values. Therefore, construction of the proposed project would not result in exposure of sensitive receptors to substantial concentrations of criteria pollutants.

With regards to emissions of air toxics, carcinogenic risks, and non-carcinogenic hazards, the use of heavy-duty construction equipment and haul trucks during construction activities would release diesel PM to the atmosphere through exhaust emissions. Diesel PM is a known carcinogen, and extended exposure to elevated concentrations of diesel PM can increase excess cancer risks in individuals. However, carcinogenic risks are typically assessed over timescales of several years to decades, as the carcinogenic dose response is cumulative in nature. Short-term exposures to diesel PM would have to involve extremely high concentrations in order to exceed the SCAQMD Air Quality Significance Threshold of 10 excess cancers per million.

Over the course of construction activities, average diesel PM emissions from on-site equipment would be approximately 0.12 pounds per day. These emissions would occur intermittently during the eight-month construction schedule. Diesel PM concentrations are not of sufficient magnitude to warrant any public

health concern, and diesel PM emissions would cease entirely upon completion of construction activities. Therefore, this impact would be less than significant, and no mitigation is required.

d) Would the proposed project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less-Than-Significant Impact)

Construction

Odors are the only potential construction emissions other than the sources addressed above. The primary source of objectionable odors during construction activities would be equipment exhaust. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site and would be temporary in nature and would not persist beyond the termination of construction activities. The proposed project would utilize standard construction techniques, and the odors would be typical of most construction sites and temporary in nature. In addition, as construction-related emissions dissipate away from the construction area, the odors associated with these emissions would also decrease and would be quickly diluted. LADWP will ensure that activities comply with SCAQMD Rules 402 (Nuisance) and 401 (Visible Emissions) to prevent the occurrence of public nuisances and visible dust plumes traveling off-site. Therefore, the proposed project would result in a less-than-significant impact related to construction odors and other nuisances.

Operations

Odors are the only potential operational emissions other than the sources addressed above. As a neighborhood park, the proposed project would not include a significant source of odors. Therefore, the proposed project would result in a less-than-significant impact related to operational odors or other emissions that may have the potential to cause a public nuisance.

References

California Air Pollution Control Officers Association, California Emissions Estimator Model (CalEEMod v2016.3.2) User's Guide, November 2017.

California Air Resources Board, Ambient Air Quality Standards, May 2016.

South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

South Coast Air Quality Management District, *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, 2013.

South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology Appendix C Mass Rate Lookup Tables*, updated October 21, 2009.

South Coast Air Quality Management District, *Historical Data By Year – Air Quality Data Tables (2017, 2018, 2019)*, accessed May 20, 2021.

South Coast Air Quality Management District, *SCAQMD Air Quality Significance Thresholds*, March 2015.

Southern California Association of Governments, *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*, April 2016.

Southern California Association of Governments, *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*, May 2020.

United States Environmental Protection Agency, *The Green Book Nonattainment Areas for Criteria Pollutants*, https://www.epa.gov/green-book, December 2020.

APPENDIX B
Biological Resources Memorandum

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Memorandum

To	Los Angeles Department of Water and Power
Subject	Figueroa Property Remediation and Park Project, Biological Resources Letter Report
From	Arthur Popp, Biologist
Date	June 24, 2021

Attachment A – Project Figures
Attachment B – Special-Status Plant and Wildlife Species Tables

1. INTRODUCTION

The Los Angeles Department of Water and Power (LADWP) proposes to implement the Figueroa Property Remediation and Park Project (Project), which would include entering into a long-term lease agreement with the Los Angeles Department of Recreation and Parks (LARAP) to develop an approximately 0.5-acre vacant LADWP-owned property (the Figueroa property; Project site) in the City of Los Angeles, California. The Project site would be developed as a neighborhood park by an independent non-profit community organization under agreement with LARAP. The park would then become a facility operated and maintained by LARAP. This memo summarizes the results of a review conducted by AECOM to document existing biological conditions at the Project site. This report includes the methods used to assess existing biological resources, the results of vegetation, wildlife, and habitat evaluation, the list of potential special-status species evaluated, and mitigation measures identified to minimize and avoid potential impacts to biological resources.

2. PROJECT DESCRIPTION

2.1 Project Location

The Project site is located at 5800 South Figueroa Street in the southern portion of the City of Los Angeles (City). A regional map and site location map depicting the Project site are included as Figures 1 and 2, respectively in Attachment A, The Project site is generally bound by West 58th Street to the north, a single-family residential property to the east, a BNSF railroad right-of-way and Slauson Avenue to the south, and Figueroa Street to the west. Major arterials providing access to the Project site are Figueroa Street immediately adjacent to the site, and the Harbor Freeway (I-110) approximately 250 feet east of the site. The area immediately surrounding the Project site is completely urbanized and developed with commercial buildings and residential dwellings to the north, various commercial buildings to the west, industrial buildings to the south, and residential dwellings to the east.

2.2 Project Characteristics

The Project site previously housed the Figueroa Pump Station, part of the LADWP potable water delivery station, from 1908 to 1959. Shortly after operations were ceased, all aboveground structures and infrastructure were demolished and the underground water storage reservoir was removed. LADWP has no plans to reutilize the property, which has remained vacant and unused for over 60 years. Therefore, in cooperation with Los Angeles Council District 9 and LARAP, LADWP intends to lease the property to LARAP to allow for the development of a neighborhood park for the surrounding community, which is currently lacking in open space and recreation resources.

Although actual design of the park is yet to be accomplished, it is anticipated that it would include pathways, seating elements, shade structures, exercise stations, and children's play equipment. The park would be entirely enclosed by a perimeter fence, allowing it to be physically secured during non-operating hours (between sunset and sunrise Landscaping would emphasize the use of drought-tolerant plant species, with concentrated areas of lawn and shade trees.

Post construction, the park would be open every day throughout the year from sunrise to sunset but would be secured by locked gates at night. Since no parking would be provided, most visitors are anticipated to access the site from the surrounding neighborhood by foot.

Operation and maintenance of the park would be the responsibility of the City of Los Angeles Department of Recreation and Parks (LARAP). The park would be open daily from sunrise to sunset.

2.3 Construction Scenario

Due to the past use of the property as a pump station, which included fuel storage and boilers among other facilities, contaminated soil has been detected in various areas of the property through several site investigations involving soil borings conducted in 2003, 2005, and 2013. The identified contaminants of concern consist of lead and various hydrocarbons. In 2009, the approximate footprint of the previous fuel storage tank was partially excavated, and in 2017, the uppermost 3 feet of soil was removed across the entire property except for an approximately 20-foot wide area along the southern boundary, adjacent to the railroad right-of-way. While these efforts removed much of the contaminated soil from the property, some isolated areas remain.

LADWP would complete the cleanup of the remaining contaminated soil to achieve the standards for California Department of Toxic Substances Control (DTSC) Human Health Risk Assessment (HERO) Note 3 residential screening levels. For contaminants where a DTSC screening level has not been established, the cleanup would achieve United States Environmental Protection Agency (USEPA) regional screening levels for residential soil. Under these screening standards, the property would be suitable for unrestricted uses, including a park, once the contaminated soils have been removed. The site preparation would also include completely backfilling with clean imported soil to restore the surface of the property to the elevation of the surrounding area.

Most of the contaminated soil detected on the Figueroa property was at depths of less than 3 feet below the surface and was therefore removed when the uppermost 3 feet of soil was removed in 2017. The remaining locations where contamination was detected at depths

greater than 3 feet are all encompassed within the footprints of the former pump station building, water reservoir, or fuel storage tank. The proposed remediation effort for the property would include the removal of soil across the entire footprints of these former facilities at depths greater than the lowest depth of detected contamination.

The remediation of the property would involve the use of an excavator to remove contaminated soil and a loader to load the soil onto dump trucks, which would haul the soil to a landfill approved to accept such material. Specifically, the remediation effort would entail the removal of approximately 2,600 cubic yards of soil in areas defined based on 32 exploratory soil bores conducted across the property in 2003, 2005, and 2013 and on material that has previously been removed in the past cleanup effort.

The backfilling of the property would involve the importation and placement such that the elevation of the site is approximately the same as the surrounding area (that is, the elevation prior to any of the past or proposed excavation of soil).

The construction of the park would involve the use of minimal construction equipment for fine grading and unloading and placing of heavier elements. No more than one to two truck trips in a given day would be required to deliver materials, including concrete. Fewer than ten on-site construction personnel would be required.

3. METHODS FOR ASSESSING BIOLOGICAL RESOURCES

A search of relevant regional databases for special-status biological resources in the vicinity of the project area was conducted prior to conducting the field survey. The property occurs in the northeast corner of the U.S. Geological Survey's Inglewood, California quadrangle. A search of Inglewood and the surrounding eight quadrangles, including Beverly Hills, Hollywood, Los Angeles, Venice, South Gate, Redondo Beach, Torrance and Long Beach was made of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and of the California Native Plant Society's (CNPS) on-line Inventory of Rare and Endangered Plants of California. Additionally, the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) (USFWS 2021) database was reviewed for special-status species, sensitive natural communities, and protected areas known from the project vicinity.

Aerial imagery of the Project site was also reviewed, as well as site photographs taken by the AECOM cultural resources team during a site visit on April 26, 2021. The review of aerial imagery and site photographs provided a means to evaluate on-site vegetation and assess the potential for occurrence of special-status plant and wildlife species. Based on the review conducted and an assessment of on-site conditions, it is apparent that special-status plant and wildlife species are not expected on-site.

4. EXISTING CONDITIONS

The Project site is located in the South Los Angeles neighborhood of the City of Los Angeles. The 20,000 square foot Project site has been vacant and unused for over 60 years. It is surrounded by a mix of industrial, commercial, and residential uses. The nearest larger open/greenspace areas occur in adjacent neighborhoods, including the South Park Recreation Center, approximately 1.3 miles to the east; Vermont Park, 1.6 miles to the

north; and Harvard Park, 1.8 miles to the northwest. The Project site is relatively flat and lies at approximately 150 feet above mean sea level. It consists primarily of bare ground, with several remnant concrete structures, pipes, and pieces of rebar. Non-native grasses are scattered throughout the Project site.

4.1 Vegetation Communities and Plants

Vegetation communities are assemblages of plant species that commonly coexist. The classification of vegetation communities is based on the life form of the dominant species within that community and the associated species. No native plant communities occur on-site. Plants occurring on-site are non-native, including foxtail barley (*Hordeum murinum*) and red brome (*Bromus rubens*), which occur in patchy cover throughout the Project site; spiny sowthistle (*Sonchus asper*) and Mexican fan palm (*Washingtonia robusta*) seedlings also occur along the perimeter of the Project site. One ornamental fig tree (*Ficus* sp.) also occurs in the northeast corner of the property; however, this tree will be removed prior to or during construction. These five non-native species are the only plant species occurring on-site. No special-status plant species were identified.

4.2 Wildlife

Since the Project site contains very little vegetation and occurs in a heavily urbanized environment, conditions are not conducive to support wildlife species and only species adapted to living in urbanized areas could be expected on-site.

4.3 Wildlife Corridor

In an urban context, a wildlife migration corridor can be defined as a linear landscape feature of sufficient width and buffer to allow animal movement between two comparatively undisturbed habitat fragments, or between a habitat fragment and some vital resource that encourages population growth and diversity. Habitat fragments are isolated patches of habitat separated by otherwise foreign or inhospitable areas, such as urban tracts or highways. Two types of wildlife migration corridors seen in urban settings are regional corridors, defined as those linking two or more large areas of natural open space, and local corridors, defined as those allowing resident wildlife to access critical resources (food, cover, and water) in a smaller area that might otherwise be isolated by urban development.

The Project site does not occur within an established regional wildlife corridor, nor does it serve as a significant local corridor. The Project site occurs in a heavily-urbanized and densely populated area of the City and there are no vegetated corridors, surface waters, drainages, or other corridors that would allow for wildlife movement between the site and green/open space areas that may provide more suitable opportunities for wildlife cover, resting, foraging, and nesting. Ornamental trees on-site and in the surrounding area provide some opportunities for cover, resting, foraging, and nesting to localized bird populations; however, they do not provide functions as a significant wildlife movement corridor.

5. SPECIAL-STATUS SPECIES

5.1 Special-Status Plant Species

Special-status plant species include those listed as Endangered, Threatened, Rare or those species proposed for listing by the US Fish and Wildlife Service (USFWS) under the federal

Endangered Species Act (FESA), those listed by CDFW under the California Endangered Species Act (CESA), and the CNPS.[1,2,3] The CNPS inventory is sanctioned by the CDFW and essentially serves as the list of candidate plant species for state listing. CNPS's California Rare Plant Ranks (CRPR) 1B and 2 species are considered eligible for state listing as endangered or threatened.

A total of 62 plant species were identified from the CNDDB and CNPS database searches, and from a search of IPaC for the Project area, to have historically been recorded from the Inglewood, Beverly Hills, Hollywood, Los Angeles, Venice, South Gate, Redondo Beach, Torrance, and Long Beach quadrangles, including the following 12 federal and/or state-listed species:

- marsh sandwort (*Arenaria paludicola*)
- Braunton's milk-vetch (*Astragalus brauntonii*)
- Ventura Marsh milk-vetch (*Astragalus pycnostachyus var. lanosissimus*)
- coastal dunes milk-vetch (*Astragalus tener var. titi*)
- salt marsh bird's beak (*Chloropyron maritimum* ssp. *maritimum*)
- San Fernando Valley spineflower (*Chorizanthe parryi var. fernandina*)
- beach spectaclepod (*Dithyrea maritima*)
- San Diego button-celery (*Eryngium aristulatum var. parishii*)
- Gambel's water cress (*Nasturtium gambelii*)
- spreading navarretia (*Navarretia fossalis*)
- California Orcutt grass (*Orcuttia californica*)
- Lyon's pentachaeta (*Pentachaeta lyonii*)

The 62 special-status plant species identified by the database reviews, their status, habitat requirements, and potential to occur in the Project area are provided in Table A, Attachment B.

No special-status plant species have been recorded at the Project site itself and the site does not provide habitat potentially suitable for special-status plants. Additionally, no USFWS-designated critical habitat for any special-status plant species coincides with the Project site.

5.2 Special-Status Wildlife Species

Special-status wildlife species include those listed by the USFWS under FESA and by CDFW under CESA.[4] USFWS officially lists species as either threatened, endangered, or as candidates for listing. Additional species receive federal protection under the Bald Eagle Protection Act (e.g., bald eagle, golden eagle), the Migratory Bird Treaty Act (MBTA), and state protection under CEQA Section 15380(d).

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1 Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (Title 50 Code of Federal Regulations [CFR] 17.12 [listed plants], Title 50 CFR 17.11 [listed animals] and includes notices in the Federal Register for proposed species).

2 Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (Title 14 California Code of Regulations 670.5).

3 Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900 *et seq*.).

4 California Department of Fish and Wildlife. 2017. California Natural Diversity Database (CNDDB). Special Animals List. October.

All birds, except European starlings, English house sparrows, rock doves (pigeons), and non-migratory game birds such as quail, pheasant, and grouse are protected under the MBTA. However, non-migratory game birds are protected under California Fish and Game Code (CFGC) Section 3503. Many other species are considered by CDFW to be California Species of Special Concern (SSC) and others are on a CDFW Watch List (WL). The CNDDB tracks species within California for which there is conservation concern, including many that are not formally listed, and assigns them a CNDDB Rank. Although CDFW SSC and WL species and species that are tracked by the CNDDB but not formally listed are afforded no official legal status, they may receive special consideration during the environmental review process. CDFW further classifies some species as "Fully Protected" (FP), indicating that the species may not be taken or possessed except for scientific purposes, under special permit from CDFW. Additionally, CFGC Sections 3503, 3505, and 3800 prohibit the take, destruction, or possession of any bird, nest, or egg of any bird except English house sparrows and European starlings unless authorization is obtained from CDFW.

A total of 53 wildlife species were identified from the CNDDB search and search of IPaC to have historically been recorded from the Inglewood and surrounding eight quadrangles, including the following 17 federal and/or State-listed wildlife species:

- tricolored blackbird (*Agelaius tricolor*)
- Swainson's hawk (*Buteo swainsoni*)
- western snowy plover (*Charadrius nivosus nivosus*)
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
- monarch – California overwintering population (*Danaus plexippus pop. 1*)
- southwestern willow flycatcher (*Empidonax traillii extimus*)
- El Segundo blue butterfly (*Euphilotes battoides allyni*)
- Palos Verdes blue butterfly (*Glaucopsyche lygdamus palosverdesensis*)
- California black rail (*Laterallus jamaicensis coturniculus*)
- Belding's savannah sparrow (*Passerculus sandwichensis beldingi*)
- Pacific pocket mouse (*Perognathus longimembris pacificus*)
- coastal California gnatcatcher (*Polioptila californica californica*)
- bank swallow (*Riparia riparia*)
- California least tern (*Sternula antillarum browni*)
- Riverside fairy shrimp (*Streptocephalus woottoni*)
- Mohave tui chub (*Siphateles bicolor mohavensis*)
- least Bell's vireo (*Vireo bellii pusillus*)

The 53 special-status wildlife species identified by the database reviews, their status, habitat requirements, and potential to occur in the project area are provided in Table B, Attachment B.

No special-status wildlife species have been recorded at the Project site itself and the site does not provide habitat potentially suitable for special-status wildlife. Additionally, no USFWS-designated critical habitat for any special-status wildlife species coincides with the Project site.

6. SENSITIVE NATURAL COMMUNITIES

Sensitive natural communities are those that are designated as rare in the region by the CNDDB, support special-status plant or wildlife species, or receive regulatory protection (i.e., Section 404 of the Clean Water Act (CWA) and/or Sections 1600 et seq. of the CFGC). Rare communities are given the highest inventory priority.[5,6] Based on a review of the CNDDB, seven sensitive vegetative communities have been recorded within the Inglewood and surrounding eight quadrangles, including California Walnut Woodland, South Coast Live Oak Riparian Forest, Southern Coastal Bluff Scrub, Southern Coastal Salt Marsh, Southern Dune Scrub, Southern Sycamore Alder Riparian Woodland, and Walnut Forest.[7] These communities are generally documented in the CNDDB from nine plus miles to the north and west, near the Santa Monica Mountains and the Palos Verdes peninsula, respectively.

No sensitive natural communities occur within the Project site and surrounding area. On-site vegetation consists non-native grasses and herbaceous species that are common in urban environments. Additionally, no sensitive aquatic communities (i.e. wetlands or other waters) under regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE), CDFW, and the Regional Water Quality Control Board (RWQCB) occur on-site.

7. APPLICABLE REGULATIONS

As referenced in some of the previous sections, several regulations and standards have been established by federal, state, and local agencies to protect and conserve biological resources. The Project's compliance with the regulations and standards listed below were assessed.

Federal Regulations and Standards:

- *Federal Endangered Species Act (FESA)*
- *Migratory Bird Treaty Act (MBTA)*
- *Clean Water Act (CWA)*
- *National Environmental Policy Act (NEPA)*

State Regulations and Standards

- *California Fish and Game Code (CFGC)*
- *California Endangered Species Act (CESA)*
- *Porter-Cologne Water Quality Control Act*
- *California Environmental Quality Act (CEQA)*

Local Regulations and Standards

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5 Holland, R., *Preliminary Descriptions of the Terrestrial Natural Communities of California*. California Department of Fish and Game, The Resources Agency. 156 pp. 1986.

6 California Department of Fish and Wildlife, 2010. List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base. Natural Heritage Division. The Resources Agency. September.

7 California Department of Fish and Wildlife. *California Natural Diversity Data Base (CNDDB).* Full condensed report for the Inglewood and surrounding eight quadrangles. Generated May 10, 2021.

- *Significant Ecological Areas (SEA) Program*
- *City of Los Angeles Tree Ordinance*

The proposed Project is not anticipated to conflict with any of these regulations and standards and many are not applicable to the Project site. This memo report is being prepared in support of compliance with CEQA and NEPA, and LADWP will adhere to standard mitigation protocols regarding the avoidance and minimization of potential project impacts to birds to comply with the MBTA and CFGC.

8. IMPACTS ON BIOLOGICAL RESOURCES

Biological resources may be either directly or indirectly impacted by a project. Direct and indirect impacts may be either permanent or temporary in nature. These impact categories are defined below.

- **Direct**: Any alteration, physical disturbance, or destruction of biological resources that would result from project-related activities is considered a direct impact. Examples include clearing vegetation, encroaching into wetlands or a stream, and the loss of individual species and/or their habitats.

- **Indirect**: As a result of project-related activities, biological resources may also be affected in a manner that is ancillary to physical impacts. Examples include elevated noise and dust levels, soil compaction, increased human activity, decreased water quality, and the introduction of invasive wildlife (domestic cats and dogs) and plants.

- **Permanent**: All impacts that result in the long-term or irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area containing biological resources.

- **Temporary**: Any impacts considered to have reversible effects on biological resources can be viewed as temporary. Examples include the generation of fugitive dust during construction; or removing vegetation for the preparation of stream bank stabilization activities, and either allowing the natural vegetation to recolonize or actively revegetating the impact area. Surface disturbance that removes vegetation and disturbs the soil is considered a long-term temporary impact because of slow natural recovery in arid ecosystems.

8.1 Construction

The anticipated impacts of proposed Project construction on biological resources are described below.

8.1.1 Vegetation

Implementation of the proposed Project would result in the removal of one fig tree. The removal and replacement of this ornamental tree does not constitute a significant direct impact.

Indirect impacts to vegetation inside and outside the project site could include the accumulation of fugitive dust, and the colonization of nonnative, invasive plant species.

Other indirect impacts could include an increase in the amount of compacted or modified surfaces that, if not controlled, could increase the potential for surface runoff, increased erosion, and sediment deposition beyond the proposed Project's footprint. With implementation of the BMPs outlined in the Project Description related to fugitive dust and erosion control, significant indirect impacts to vegetation are not anticipated.

8.1.2 Special-Status Plant Species

Individual special-status plant species could be damaged or destroyed from crushing or trampling during construction activities; however, no federal or State-listed plant species have been identified on-site and special-status plants are not expect to occur in the Project site due to a lack of potentially suitable habitat. As a result, significant direct effects on special-status plants are not anticipated.

Indirect impacts to special-status plant species occurring outside the Project site could result from construction-related habitat loss and modification of sensitive natural communities related to dust, noise, stormwater runoff, and through the potential spread of noxious and invasive plant species into these communities. Such impacts would be considered significant; however, suitable habitat for special-status plants is not present in the urban environment surrounding the Project site, and by implementing the BMPs outlined in the Project Description related to fugitive dust and erosion control, the potential for indirect impacts to special-status plants would be further reduced. As a result, indirect impacts to special-status plants are not anticipated.

8.1.3 Sensitive Natural Communities

Implementation of the proposed Project would not result in direct or indirect impacts to any sensitive natural communities. As presented in Section 6, no sensitive natural communities occur within the Project site and surrounding area. Additionally, sensitive aquatic habitats under regulatory jurisdiction of USACE, CDFW, and RWQCB do not occur in the Project site or surrounding area. As a result, impacts to sensitive natural communities would not occur.

8.1.4 Nesting Birds

Ornamental trees in the Project site and surrounding area provide potentially suitable nesting habitat for urban bird species. As a result, birds protected by the MBTA and the CFGC have the potential to nest in and near the Project site. By avoiding vegetation removal during the nesting bird season or adhering to avoidance and minimization measures provided in BIO-1, the direct impacts of vegetation removal on nesting birds or their associated habitat would be less than significant.

Indirect impacts to nesting birds within the vicinity of the Project site could occur during construction as a result of noise, dust, increased human presence, and vibrations resulting from construction activities. Disturbances related to construction could result in increased nestling mortality due to nest abandonment or decreased feeding frequency. By adhering to avoidance and minimization measures outlined in BIO-1, indirect impacts to nesting birds would be less than significant.

8.1.5 Special Status Wildlife Species

Individual special-status wildlife species could be directly and indirectly affected during construction in the same manner as described above; however, no federal or State-listed wildlife species have been identified on-site and potentially suitable habitat for such species is absent from the Project site and surrounding area. By implementing the BMPs outlined in the Project Description related to fugitive dust, erosion control, and adhering to the avoidance and minimization measures provided in BIO-1, the potential for indirect impacts to special-status wildlife would be less than significant.

8.1.6 Wildlife Movement Corridor

The Project site does not serve as a regional wildlife corridor and as a result, direct impacts to a regional wildlife movement corridor would not occur. Proposed Project construction activities (i.e., increased noise, human presence, vibration) would likely result in bird species avoiding the immediate project vicinity. Such indirect effects would be temporary in nature, restricted to the proposed Project construction time period. By implementing the BMPs outlined in the Project Description related to fugitive dust, erosion control, and adhering to avoidance and minimization measures provided in BIO-1, impacts to a wildlife movement corridor would be less than significant.

8.1.7 Local Policies and Ordinances

Native tree species that measure four inches or more in cumulative diameter, four and one-half feet above the ground, including native oak (Quercus spp.), southern California black walnut (*Juglans californica var. californica*), western sycamore (*Platanus racemosa*), and California bay (*Umbellularia californica*) are protected by the City of Los Angeles Municipal Code. Any tree grown or held for sale by a nursery, or trees planted or grown as part of a tree planting program, are not included in the definition of a protected tree. None of the trees listed above occur on the Project site.

9. AVOIDANCE AND MINIMIZATION MEASURES

With the potential for nesting birds protected under the MBTA and CFGC to occur in ornamental trees within the Project site and surrounding area, implementation of the avoidance and minimization measures presented below would avoid potential impacts to nesting birds should construction be initiated during the bird breeding season (February 15 through September 1).

BIO-1. Tree removal during proposed Project construction shall occur outside of the nesting bird season (generally February 15 through September 1). If avoiding the nesting season is not practicable, the following additional measures shall be employed:

- A pre-construction nesting survey shall be conducted by a qualified biologist within 3 days prior to the start of construction activities to determine whether active nests are present within or directly adjacent to the construction zone. All nests found shall be recorded.

- If active nests are detected during the survey, the qualified biologist shall monitor all nests with buffers at least once per week to determine whether birds are being disturbed. If signs of disturbance or stress are observed, the qualified biologist shall implement adaptive measures to reduce disturbance. These measures could include increasing buffer distance, temporarily halting construction activities until fledging is confirmed, or placing visual screens or sound dampening structures between the nest and construction activity.

10. CONCLUSIONS

Based on the analysis presented above regarding anticipated effects of the proposed Project, with implementation of avoidance and minimization measureBIO-1 presented in Section 9 above, impacts to nesting birds would be less than significant. With the implementation of the BMPs outlined in the Project Description, no other impacts to biological resources would occur.

Should you have any questions or comments regarding this memo, or if additional information is required, please feel free to contact me.

Sincerely,

Arthur Popp
Biologist

Enc:

Attachment A: Project Figures
Attachment B: Special-Status Plant and Wildlife Species Tables

ATTACHMENT A

FIGURES

ATTACHMENT B

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES TABLES

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name *Scientific Name*[2]	Status[3]	General Habitat Description[4]	Potential for Occurrence in the Project Site
Plants			
red sand-verbena *Abronia maritima*	Federal: None State: None CRPR: 4.2	Found in coastal dune habitats. Occurs between 0-100 meters (0-330 feet). Blooms February-November.	**Not expected.** Potentially suitable habitat for this species is absent.
aphanisma *Aphanisma blitoides*	Federal: None State: None CRPR: 1B.2	Prefers sandy or gravelly soils in coastal bluff scrub, coastal dunes, and coastal scrub habitats. Occurs between 0-305 meters (0-1,000 feet). Blooms February-June.	**Not expected.** Potentially suitable habitat for this species is absent.
marsh sandwort *Arenaria paludicola*	Federal: FE State: SE CRPR: 1B.1	Found in sandy openings in freshwater or brackish marshes and swamps. Occurs between 3-170 meters (10-560 feet). Blooms May-August.	**Not expected.** Potentially suitable habitat for this species is absent.
Braunton's milk- vetch *Astragalus brauntonii*	Federal: FE State: None CRPR: 1B.1	Found in closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland. Prefers recent burns or disturbed areas, in stiff gravelly clay soils overlying granite or limestone. Occurs between 4-640 meters (13-2,100 feet). Blooms January-August.	**Not expected.** Potentially suitable habitat for this species is absent.
Horn's milk-vetch *Astragalus hornii var. hornii*	Federal: None State: None CRPR: 1B.1	Prefers lake margins and alkaline areas in meadow and seep and playa habitats. Occurs between 60-850 meters (195-2,780 feet). Blooms May-October.	**Not expected.** Potentially suitable habitat for this species is absent and the Project site occurs outside of the known elevation range for this species.
Ventura Marsh milk-vetch *Astragalus pycnostachyus var. lanosissimus*	Federal: FE State: SE CRPR: 1B.1	Occurs in coastal dunes, coastal scrub, and edges of coastal salt or brackish marshes and swamps. Occurs between 1-35 meters (3-115 feet). Blooms June-October.	**Not expected.** Potentially suitable habitat for this species is absent.
coastal dunes milk-vetch *Astragalus tener var. titi*	Federal: FE State: SE CRPR: 1B.1	Found in vernally mesic areas in coastal bluff scrub, coastal dune, and coastal prairie habitats. Occurs between 0-50 meters (0-165 feet). Blooms March-May.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name ***Scientific Name*[2]**	**Status[3]**	**General Habitat Description[4]**	**Potential for Occurrence in the Project Site**
Coulter's saltbush *Atriplex coulteri*	Federal: None State: None CRPR: 1B.2	Often in alkaline or clay habitats of coastal bluff scrub, coastal dunes, coastal scrub and valley and foothill grasslands. Occurs between 0-460 meters (0-1,510 feet). Blooms March-October.	**Not expected.** Potentially suitable habitat for this species is absent.
south coast saltscale *Atriplex pacifica*	Federal: None State: None CRPR: 1B.2	Found in alkali sink, coastal sage scrub, wetland-riparian playas, and coastal habitats. Occurs between 0-140 meters (0-460 feet). Blooms March-October.	**Not expected.** Potentially suitable habitat for this species is absent.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CRPR: 1B.1	Found in alkaline chenopod scrub, playas, and vernal pool habitats. Occurs between 25-1,900 meters (80-6,230 feet). Blooms June-October.	**Not expected.** Potentially suitable habitat for this species is absent.
Davidon's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None Statae: None CRPR: 1B.2	Found in coastal bluff scrub and coastal scrub habitats. Prefers alkaline soil. Occurs between 10-200 meters (30-660 feet). Blooms April-October.	**Not expected.** Potentially suitable habitat for this species is absent.
Nevin's barberry *Berberis nevinii*	Federal: None State: None CRPR: 1B.1	Found in sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub habitats. Occurs between 230-2,710 feet (70-825 meters). Blooms (February) March-June.	**Not expected.** Potentially suitable habitat for this species is absent.
Catalina mariposa-lily *Calochortus catalinae*	Federal: None State: None CRPR: 4.2	Found in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. Occurs between 15-700 meters (50-2,300 feet). Blooms February-June.	**Not expected.** Potentially suitable habitat for this species is absent.
Plummer's mariposa-lily *Calochortus plummerae*	Federal: None State: None CRPR: 4.2	Found in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest habitats, on rocky and sandy sites (granitic or alluvial material). Occurs between 100–1,700 meters (330-5,580 feet). Blooms May-July.	**Not expected.** Potentially suitable habitat for this species is absent and the Project site occurs outside of the known elevation range for this species.

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name ***Scientific Name*[2]**	**Status[3]**	**General Habitat Description[4]**	**Potential for Occurrence in the Project Site**
lucky morning-glory *Calystegia felix*	Federal: None State: None CRPR: 3.1	Sometimes found in alkaline meadows and seeps and alluvial riparian scrub. Historically associated with wetland and marshy places, but possibly in drier situations as well. Possibly found in silty loam and alkaline soils. Occurs between 30-215 meters (100-705 feet). Blooms March-September.	**Not expected.** Potentially suitable habitat for this species is absent.
Peirson's morning-glory *Calystegia peirsonii*	Federal: None State: None CRPR: 4.2	Found in chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland habitats. Occurs between 95-4,925 feet (30-1,500 meters). Blooms April-June.	**Not expected.** Potentially suitable habitat for this species is absent.
Lewis' evening primrose *Camissoniopsis lewisii*	Federal: None State: None CRPR 3	Prefers sandy or clay soils in coastal bluff scrub, Cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland habitats. Occurs between 0-300 meters (0-985 feet). Blooms March-June.	**Not expected.** Potentially suitable habitat for this species is absent.
southern tarplant *Centromadia parryi ssp. australis*	Federal: None State: None CRPR: 1B.1	Found in margins of marshes and swamps, valley and foothill grassland, and vernal pool habitats. Occurs between 0-480 meters (0-1,570 feet). Blooms May-November.	**Not expected.** Potentially suitable habitat for this species is absent.
smooth tarplant *Centromadia pungens ssp. laevis*	Federal: None State: None CRPR: 1B.1	Prefers alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland habitats. Occurs between 0-2,100 feet (0-640 meters). Blooms April-September.	**Not expected.** Potentially suitable habitat for this species is absent.
Orcutt's pincushion *Chaenactis glabriuscula* var. *orcuttiana*	Federal: None State: None CRPR: 1B.1	Found in sandy coastal bluff scrub and coastal dune habitats. Occurs between 0-100 meters (0-330 feet). Blooms January-August.	**Not expected.** Potentially suitable habitat for this species is absent.
coastal goosefoot *Chenopodium littoreum*	Federal: None State: None CRPR: 1B.2	Found in coastal dune habitats. Occurs between 10-30 meters (30-100 feet). Blooms April-August.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name ***Scientific Name*[2]**	**Status[3]**	**General Habitat Description[4]**	**Potential for Occurrence in the Project Site**
salt marsh bird's-beak *Chloropyron maritimum* ssp. *maritimum*	Federal: FE State: SE CRPR: 1B.2	Found in coastal dunes and coastal salt marshes and swamps. Occurs between 0-30 meters (0-100 feet). Blooms May-October (November).	**Not expected.** Potentially suitable habitat for this species is absent.
San Fernando Valley spineflower *Chorizanthe parryi var. fernandina*	Federal: FC State: SE CRPR: 1B.1	Prefers sandy coastal scrub and valley and foothill grassland habitats. Occurs between 150-1,220 meters (495-4,000 feet). Blooms April-July.	**Not expected.** Potentially suitable habitat for this species is absent and the Project site occurs outside of the known elevation range for this species.
seaside cistanthe *Cistanthe maritima*	Federal: None State: None CRPR: 4.2	Prefers sandy habitats in coastal bluff scrub, coastal scrub, and valley and foothill grassland habitats. Occurs between 5-300 meters (15-985 feet). Blooms February-August.	**Not expected.** Potentially suitable habitat for this species is absent.
monkey-flower savory *Clinopodium mimuloides*	Federal: None State: None CRPR: 4.2	Found in streambanks and mesic areas in chaparral and North Coast coniferous forest habitats. Occurs between 305-1,800 meters (1,000-5,905 feet). Blooms June-October.	**Not expected.** Potentially suitable habitat for this species is absent and the Project site occurs outside of the known elevation range for this species.
small-flowered morning-glory *Convolvulus simulans*	Federal: None State: None CRPR: 4.2	Prefers clay soils and serpentine seeps in chaparral, coastal scrub, and valley and foothill grassland habitats. Occurs between 30-700 meters (100-2,300 feet). Blooms March-July.	**Not expected.** Potentially suitable habitat for this species is absent.
paniculate tarplant *Deinandra paniculata*	Federal: None State: None CRPR: 4.2	Prefers vernally mesic or sandy areas in coastal scrub, valley foothill grassland, and vernal pool habitats. Occurs between 25-940 meters (80-3,085 feet). Blooms (March) April-November.	**Not expected.** Potentially suitable habitat for this species is absent.
western dichondra *Dichondra occidentalis*	Federal: None State: None CRPR: 4.2	Found in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. Occurs between 50-500 meters (160-1,640 feet). Blooms (January) March-July.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name ***Scientific Name*[2]**	**Status[3]**	**General Habitat Description[4]**	**Potential for Occurrence in the Project Site**
beach spectaclepod *Dithyrea maritima*	Federal: None State: ST CRPR: 1B.1	Found in coastal dune and sandy coastal scrub habitats. Occurs between 0-50 meters (5-165 feet). Blooms March-May.	**Not expected.** Potentially suitable habitat for this species is absent.
many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CRPR: 1B.2	Found in chaparral, coastal scrub, and valley and foothill grassland habitats. Often found in clay soils. Occurs between 15-790 meters (50-2,520 feet). Blooms April-July.	**Not expected.** Potentially suitable habitat for this species is absent.
island green dudleya *Dudleya virens* ssp. *insularis*	Federal: None State: None CRPR: 1B.2	Prefers rocky areas in coastal bluff scrub and coastal scrub habitats. Occurs between 5-300 meters (15-984 feet). Blooms April-June.	**Not expected.** Potentially suitable habitat for this species is absent.
San Diego button-celery *Eryngium aristulatum var. parishii*	Federal: FE State: SE CRPR: 1B.1	Prefers mesic areas in coastal scrub, valley and foothill grassland, and vernal pool habitats. Occurs between 20-620 meters (65-2,035 feet). Blooms April-June.	**Not expected.** Potentially suitable habitat for this species is absent.
suffrutescent wallflower *Erysimum suffrutescens*	Federal: None State: None CRPR: 4.2	Found in coastal bluff scrub, maritime chaparral, and coastal scrub habitats. Occurs between 0-150 meters (0-495 feet). Blooms January-July (August).	**Not expected.** Potentially suitable habitat for this species is absent.
Los Angeles sunflower *Helianthus nuttallii* ssp. *parishii*	Federal: None State: None CRPR: 1A	Found in coastal salt and freshwater marshes and swamps. Occurs between 10-1,675 meters (30-5,490 feet). Blooms August-October.	**Not expected.** Potentially suitable habitat for this species is absent.
vernal barley *Hordeum intercedens*	Federal: None State: None CRPR: 3.2	Found in coastal dunes, coastal scrub, vernal pools, and in saline flats and depressions in valley and foothill grassland habitats. Occurs between 5-1,000 meters (15-3,280 feet). Blooms March-June.	**Not expected.** Potentially suitable habitat for this species is absent.
mesa horkelia *Horkelia cuneata* ssp. *puperula*	Federal: None State: None CRPR: 1B.1	Prefers sandy or gravelly sites in chaparral, cismontane woodland, and coastal scrub habitats. Occurs between 70-810 meters (230-2,660 feet). Blooms February-September.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name ***Scientific Name*** [2]	**Status** [3]	**General Habitat Description** [4]	**Potential for Occurrence in the Project Site**
decumbent goldenbush *Isocoma menziesii* var. *decumbens*	Federal: None State: None CRPR: 1B.2	Found in chaparral and coastal scrub habitats. Often found in sandy soils or disturbed areas. Occurs between 10-135 meters (30-445 feet). Blooms April-November.	**Not expected.** Potentially suitable habitat for this species is absent.
Southern California black walnut *Juglans californica*	Federal: None State: None CRPR: 4.2	Prefers alluvial sites in chaparral, cismontane woodlands, coastal scrub, and riparian woodland habitats. Occurs between 50-900 meters (160-2,950 feet). Blooms March-August.	**Not expected.** Potentially suitable habitat for this species is absent.
southwestern spiny rush *Juncus acutus* ssp. *coulteri*	Federal: None State: None CRPR: 4.2	Found in mesic coastal dunes, alkaline meadows and seeps, and coastal salt marshes and swamps. Occurs between 0-900 meters (0-2,955 feet). Blooms (March) May-June.	**Not expected.** Potentially suitable habitat for this species is absent.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CRPR: 1B.1	Found in coastal salt marshes, playas, and vernal pools. Occurs between 0-1,220 meters (0-4,000 feet). Blooms February-June.	**Not expected.** Potentially suitable habitat for this species is absent.
Robinson's pepper-grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CRPR: 4.3	Found in chaparral and coastal scrub habitats. Occurs between 0-885 meters (5-2,905 feet). Blooms January-July.	**Not expected.** Potentially suitable habitat for this species is absent.
sea dahlia *Leptosyne maritima*	Federal: None State: None CRPR: 2B.2	Occurs in coastal bluff scrub and coastal scrub habitats. Occurs between 5-150 meters (15-495 feet). Blooms March-May.	**Not expected.** Potentially suitable habitat for this species is absent.
Santa Catalina Island desert-thorn *Lycium brevipes* var. *hassei*	Federal: None State: None CRPR: 3.1	Occurs in coastal bluff scrub and coastal scrub habitats. Occurs between 65-300 meters (20-985 feet). Blooms June-August.	**Not expected.** Potentially suitable habitat for this species is absent.
mud nama *Nama stenocarpa*	Federal: None State: None CRPR: 2B.2	Found in marshes and swamps, lake margins, and riverbanks. Occurs between 5-500 meters (15-1,640 feet). Blooms January-July.	**Not expected.** Potentially suitable habitat for this species is absent.
Gambel's water cress *Nasturtium gambelii*	Federal: FE State: ST CRPR: 1B.1	Found in freshwater or brackish marshes and swamps. Occurs between 5-330 meters (15-1,080 feet). Blooms April-October.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name ***Scientific Name*[2]**	**Status[3]**	**General Habitat Description[4]**	**Potential for Occurrence in the Project Site**
spreading navarretia *Navarretia fossalis*	Federal: FT State: None CRPR: 1B.1	Found in chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pool habitats. Occurs between 30-665 meters (95-2,185 feet). Blooms April-June.	**Not expected.** Potentially suitable habitat for this species is absent.
prostrate vernal pool navarretia *Navarretia prostrata*	Federal: None State: None CRPR: 1B.1	Prefers mesic coastal scrub, meadows and seeps, alkaline valley and foothill grassland, and vernal pool habitats. Occurs between 15-1,210 meters (50-3,970 feet). Blooms April-July.	**Not expected.** Potentially suitable habitat for this species is absent.
coast woolly-heads *Nemacaulis denudata* var. *denudata*	Federal: None State: None CRPR: 1B.2	Found in coastal dunes. Occurs between 0-100 meters (0-330 feet). Blooms April-September.	**Not expected.** Potentially suitable habitat for this species is absent.
California Orcutt grass *Orcuttia californica*	Federal: FE State: SE CRPR: 1B.1	Found in vernal pools. Occurs between 15-660 meters (50-2,165 feet). Blooms April-August	**Not expected.** Potentially suitable habitat for this species is absent.
Lyon's pentachaeta *Pentachaeta lyonii*	Federal: FE State: SE CRPR: 1B.1	Prefers rocky, clay sites in chaparral, coastal scrub, and valley and foothill grassland habitats. Occurs between 30-690 meters (100-2,265 feet). Blooms February-August.	**Not expected.** Potentially suitable habitat for this species is absent.
Hubby's phacelia *Phacelia hubbyi*	Federal: None State: None CRPR: 4.2	Prefers gravelly, rocky, or talus sites in chaparral, coastal scrub, and valley and foothill grassland habitats. Occurs between 0-1,000 meters (0-3,280 feet). Blooms April-July.	**Not expected.** Potentially suitable habitat for this species is absent.
south coast branching phacelia *Phacelia ramosissima* var. *austrolitoralis*	Federal: None State: None CRPR: 3.2	Prefers sandy or rocky areas in chaparral, coastal dune, coastal scrub, and coastal salt marsh and swamp habitats. Occurs between 5-300 meters (15-985 feet). Blooms March-August.	**Not expected.** Potentially suitable habitat for this species is absent.
Brand's star phacelia *Phacelia stellaris*	Federal: None State: None CRPR: 1B.1	Occurs in coastal dune and coastal scrub habitats. Occurs between 0-400 meters (0-1,320 feet). Blooms March-June.	**Not expected.** Potentially suitable habitat for this species is absent.
Ballona cinquefoil *Potentilla multijuga*	Federal: None State: none CRPR: 1A	Found in brackish meadows and seeps. Occurs between 0-5 meters (0-20 feet). Blooms June-August.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name ***Scientific Name*[2]**	**Status[3]**	**General Habitat Description[4]**	**Potential for Occurrence in the Project Site**
white rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CRPR: 2B.2	Prefers sandy or gravelly sites in riparian woodland, cismontane woodland, coastal scrub, and chaparral habitats. Occurs between 0-2,100 meters (0-6,890 feet). Blooms July-December.	**Not expected.** Potentially suitable habitat for this species is absent.
Nuttall's scrub oak *Quercus dumosa*	Federal: None State: None CRPR: 1B.1	Prefers sandy or clay loam soils in closed-cone coniferous forest, chaparral, and coastal scrub habitats. Occurs between 15-400 meters (45-1,315 feet). Blooms February-April (May-August).	**Not expected.** Potentially suitable habitat for this species is absent.
Parish's gooseberry *Ribes divaricatum var. parishii*	Federal: None State: None CRPR: 1A	Inhabits riparian woodland habitats. Occurs between 65-300 meters (210-985 feet). Blooms February-April.	**Not expected.** Potentially suitable habitat for this species is absent and the Project site occurs outside of the known elevation range for this species.
salt spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CRPR: 2B.2	Prefers alkaline or mesic sites in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playa habitats. Occurs between 15-1,530 meters (45-5,020 feet). Blooms March-June.	**Not expected.** Potentially suitable habitat for this species is absent.
estuary seablite *Suaeda esteroa*	Federal: None State: None CRPR: 1B.2	Found in coastal salt marshes and swamps. Occurs between 0-5 meters (0-20 feet). Blooms May-January.	**Not expected.** Potentially suitable habitat for this species is absent.
woolly seablite *Suaeda taxifolia*	Federal: None State: None CRPR: 4.2	Found in coastal bluff scrub habitats, coastal dunes, and marshes and swamps. Occurs between 0-50 meters (0-165 feet). Blooms January-December.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE A. REGIONAL SPECIAL-STATUS PLANT SPECIES AND NATURAL VEGETATION COMMUNITIES[1]

Common Name ***Scientific Name*[2]**	**Status[3]**	**General Habitat Description[4]**	**Potential for Occurrence in the Project Site**
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CRPR: 1B.2	Prefers sites near ditches, streams, and springs in coastal scrub, meadows and seeps, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats. Occurs between 0-2,040 meters (5-6,690 feet). Blooms July-November.	**Not expected.** Potentially suitable habitat for this species is absent.
Greata's aster *Symphyotrichum greatae*	Federal: None State: None CRPR: 1B.3	Prefers mesic sites in broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland habitats. Occurs between 300-2,010 meters (980-6,590 feet). Blooms June-October.	**Not expected.** Potentially suitable habitat for this species is absent and the Project site occurs outside of the known elevation range for this species.
Sensitive Natural Communities			
California Walnut Woodland	CNDDB		**Not expected.** This sensitive community is not present.
Southern Coast Live Oak Riparian Forest	CNDDB		**Not expected.** This sensitive community is not present.
Southern Coastal Bluff Scrub	CNDDB		**Not expected.** This sensitive community is not present.
Southern Coastal Salt Marsh	CNDDB		**Not expected.** This sensitive community is not present.
Southern Dune Scrub	CNDDB		**Not expected.** This sensitive community is not present.
Southern Sycamore Alder Riparian Woodland	CNDDB		**Not expected**. This sensitive community is not present.
Walnut Forest	CNDDB		**Not expected.** This sensitive community is not present.

[1] Special-status plant species known from the CNDDB and CNPS to occur on Inglewood, Beverly Hills, Hollywood, Los Angeles, Venice, South Gate, Redondo Beach, Torrance, and Long Beach quadrangles.

[2] Nomenclature for special-status plant species conforms to CNPS.

[3] Sensitivity Status Codes

Federal	**FT** - Federally Threatened under the Federal Endangered Species Act
	FE - Federally Endangered under the Federal Endangered Species Act
	FC – A Federal Candidate for listing under the Federal Endangered Species Act
State	**ST** - State Threatened under the California Endangered Species Act
	SE - State Endangered under the California Endangered Species Act
CRPR	California Rare Plant Rank (CRPR)
	1A: Plants presumed extinct in California
	1B: Plants rare, threatened, or endangered in California and elsewhere
	2: Plants rare, threatened, or endangered in California, but more common elsewhere
	3: Plants more information is needed for
	4: Plants of limited distribution – a watch list
	0.1: Seriously threatened in California
	0.2: Fairly endangered in California
	0.3: Not very endangered in California
	California Department of Fish and Wildlife (CDFW)
CNDDB	Tracked by CDFW in the CNDDB

[4] General Habitat Descriptions from CNDDB and CNPS.

TABLE B. REGIONAL SPECIAL-STATUS WILDLIFE SPECIES[1]

Common Name ***Scientific Name*[2]**	**Status[3]**	**General Habitat Description[4]**	**Potential for Occurrence in the Project Site**
Invertebrates			
Crotch bumble bee *Bombus crotchii*	Federal: None State: CE Other: CNDDB	Occurs at relatively warm and dry sites, including the inner Coast Range of California and the margins of the Mojave Desert.	**Not expected.** Potentially suitable habitat for this species is absent.
Belkin's dune tabanid fly *Brennania belkini*	Federal: None State: None Other: CNDDB	Occurs in salt marsh habitats.	**Not expected.** Potentially suitable habitat for this species is absent.
sandy beach tiger beetle *Cicindela hirticolis gravida*	Federal: None State: None Other: CNDDB	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Inhabits clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	**Not expected.** Potentially suitable habitat for this species is absent.
western beach tiger beetle *Cicindela latesignata latesignata*	Federal: None State: None Other: CNDDB	Prefers sandy areas in coastal habitats. Found in Los Angeles, Orange and San Diego counties.	**Not expected.** Potentially suitable habitat for this species is absent.
senile tiger beetle *Cicindela senilis frosti*	Federal: None State: None Other: CNDDB	Inhabits coastal mud flats, salt flats, salt marshes, and inland alkali mud flats.	**Not expected.** Potentially suitable habitat for this species is absent.
globose dune beetle *Coelus globosus*	Federal: None State: None Other: CNDDB	Found in coastal dune habitats.	**Not expected.** Potentially suitable habitat for this species is absent.
monarch – California overwintering population *Danaus plexippus pop. 1*	Federal: CE State: None Other: CNDDB	Winter roosts occur along California coast from Mendocino County, south to Baja California, Mexico. Roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby.	**Not expected.** Potentially suitable habitat for this species is absent.
Henne's eucosman moth *Eucosma hennei*	Federal: None State: None Other: CNDDB	Inhabits undisturbed sand dunes, including open to moderately vegetated areas. Requires *Phacelia* sp. as larval food source.	**Not expected.** Potentially suitable habitat for this species is absent.
Busck's gallmoth *Carolella busckana*	Federal: None State: None Other: CNDDB	Found in Southern California. On wing from November-February.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE B. REGIONAL SPECIAL-STATUS WILDLIFE SPECIES[1]

Common Name *Scientific Name*[2]	Status[3]	General Habitat Description[4]	Potential for Occurrence in the Project Site
El Segundo blue butterfly *Euphilotes battoides allyni*	Federal: FE State: None Other: CNDDB	Obligate resident of coastal dunes. Requires presence of its host plant, seacliff buckwheat (*Eriogonum parvifolium*). Only three colonies remain in	**Not expected.** Potentially suitable habitat for this species is absent.
Palos Verdes blue butterfly *Glaucopsyche lygdamus palosverdesensis*	Federal: FE State: None Other: CNDDB	Dependent on two larval hostplants, Santa Barbara milkvetch (*Astragalus trichopodus* var. *lonchus*) and deerweed (*Acmispon glaber*). Found in the Palos Verdes peninsula and seaward side of the Palos Verdes Hills.	**Not expected.** Potentially suitable habitat for this species is absent.
San Gabriel chestnut *Glyptostoma gabrielense*	Federal: None State: None Other: CNDDB	Found in humid areas in rocky hills and mountains at low elevations.	**Not expected.** Potentially suitable habitat for this species is absent.
western ridged mussel *Gonidea angulata*	Federal: None State: None Other: CNDDB	Found in streams, rivers, and lakes with substrates ranging from gravel to firm mud. Requires at least some silt, sand, or clay.	**Not expected.** Potentially suitable habitat for this species is absent.
western tidal-flat tiger beetle *Habroscelimorpha gabbii*	Federal: None State: None Other: CNDDB	Occurs in salty coastal habitats including salt marshes, tidal flats and beaches. Range from Ventura, California to Baja California. Burrows into sand or soil.	**Not expected.** Potentially suitable habitat for this species is absent.
Lange's El Segundo Dune weevil *Onychobaris langei*	Federal: None State: None Other: CNDDB	Occurs in El Segundo dunes in Los Angeles County.	**Not expected.** Potentially suitable habitat for this species is absent.
wandering (=saltmarsh) skipper *Panoquina errans*	Federal: None State: None Other: CNDDB	Inhabits salt marshes and other wetland habitats; occasionally found in sand dunes. Requires saltgrass (*Distichlis spicata*) as larval food source.	**Not expected.** Potentially suitable habitat for this species is absent.
El Segundo flower-loving fly *Rhaphiomidas terminatus terminatus*	Federal: None State: None Other: CNDDB	Found in vernal and other seasonal pools of at least 30 centimeters (12 inches) in depth. Found on Palos Verdes Peninsula in the upper Malaga sand dune. Spends most of its lifecycle underground with adults emerging for only two weeks.	**Not expected.** Potentially suitable habitat for this species is absent.
Gertsch's socalchemmis spider *Socalchemmis gertschi*	Federal: None State: None Other: CNDDB	Inhabits sage scrub, chaparral, oak woodland, and coniferous forest, generally in rocky outcrops or talus slopes in non-arid climates. Known only from Brentwood and Topanga Canyon.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE B. REGIONAL SPECIAL-STATUS WILDLIFE SPECIES[1]

Common Name ***Scientific Name*** [2]	**Status** [3]	**General Habitat Description** [4]	**Potential for Occurrence in the Project Site**
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None Other: CNDDB	Lives in vernal pools of at least 30 centimeters in depth, from January through March. Found in Riverside and San Diego counties. Also found in northern Baja California.	**Not expected.** Potentially suitable habitat for this species is absent.
Dorothy's El Segundo Dune weevil *Trigonoscuta dorothea dorothea*	Federal: None State: None Other: CNDDB	Found in coastal sand dunes.	**Not expected.** Potentially suitable habitat for this species is absent.
mimic tryonia (=California brackishwater snail)	Federal: None State: None Other: CNDDB	Prefers coarse brackish sediments at the mouths of creeks, streams and rivers of southern California.	**Not expected.** Potentially suitable habitat for this species is absent.
Fish			
Mohave tui chub *Siphateles bicolor mohavensis*	Federal: FE State: SE Other: FP	Historically found in the Mojave River. Associated with deep pools and sloughs of the river.	**Not expected.** Potentially suitable habitat for this species is absent.
Amphibians			
western spadefoot *Spea hammondii*	Federal: None State: None Other: SSC	Inhabits grassland, oak woodland, coastal sage scrub, and chaparral vegetation in washes, floodplains, alluvial fans, playas, and alkali flats.	**Not expected.** Potentially suitable habitat for this species is absent.
Reptiles			
southern California legless lizard *Anniella stebbinsi*	Federal: None State: None Other: SSC	Occurs in moist warm loose soils in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Often under leaf litter or other surface objects.	**Not expected.** Potentially suitable habitat for this species is absent.
California glossy snake *Arizona elegans occidentalis*	Federal: None State: None Other: SSC	Most common is desert habitats but also occur in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grassland habitats.	**Not expected.** Potentially suitable habitat for this species is absent.
coastal whiptail *Aspidoscelis tigris stejnegeri*	Federal: None State: None Other: SSC	Found in deserts and semiarid areas with sparse vegetation and open areas. Also occurs in woodland and riparian areas. Substrate may be firm, sandy, or rocky soils.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE B. REGIONAL SPECIAL-STATUS WILDLIFE SPECIES[1]

Common Name *Scientific Name*[2]	Status[3]	General Habitat Description[4]	Potential for Occurrence in the Project Site
western pond turtle *Emys marmorata*	Federal: None State: None Other: SSC	Occurs in aquatic water bodies including flowing rivers and streams, permanent lakes, ponds, reservoirs, settling ponds, marshes and other wetlands. Semi- permanent water bodies such as stock ponds, vernal pools and seasonal wetlands can also be utilized on a temporary basis.	**Not expected.** Potentially suitable habitat for this species is absent.
coast horned lizard *Phrynosoma blainvillii*	Federal: None State: None Other: SSC	Inhabits coastal sage scrub and chaparral in arid and semiarid climates. Prefers friable, rocky, or shallow sandy soils.	**Not expected**. Potentially suitable habitat for this species is absent.
Birds			
tricolored blackbird *Agelaius tricolor*	Federal: None State: ST Other: BCC, SSC	Inhabits annual grasslands, wet and dry vernal pools, seasonal wetlands. Frequently found in and around agricultural areas.	**Not expected.** Potentially suitable habitat for this species is absent.
southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	Federal: None State: None Other: WL	Resident in southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	**Not expected.** Potentially suitable habitat for this species is absent.
burrowing owl *Athene cunicularia*	Federal: None State: None Other: BCC, SCC	Inhabits open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, California ground squirrel.	**Not expected.** Potentially suitable habitat for this species is absent.
Swainson's hawk *Buteo swainsoni*	Federal: None State: ST Other: BCC	Nests in stands with few trees in juniper-sage flats and riparian areas. Utilizes adjacent grasslands, grain or alfalfa fields, or livestock pastures for foraging.	**Not expected.** Potentially suitable habitat for this species is absent.
western snowy plover *Charadrius nivosus nivosus*	Federal: FT State: None Other: BCC, SSC	Inhabits coastal beaches, coastal dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Less common habitat includes dredged material disposal sites, salt pond levees, dry salt ponds, and river bars.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE B. REGIONAL SPECIAL-STATUS WILDLIFE SPECIES[1]

Common Name ***Scientific Name*** [2]	**Status**[3]	**General Habitat Description**[4]	**Potential for Occurrence in the Project Site**
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	Federal: FT State: SE Other: BCC	Breeds in low to moderate elevation native forests lining the rivers and streams of western United States. Prefers cottonwood-willow forests. Migrate to wintering grounds in South America.	**Not expected.** Potentially suitable habitat for this species is absent.
yellow rail *Coturnicops noveboracensis*	Federal: None State: None Other: BCC, SSC	Inhabits sedge marshes and meadows with moist soil or shallow standing water.	**Not expected.** Potentially suitable habitat for this species is absent.
southwestern willow flycatcher *Empidonax traillii extimus*	Federal: FE State: SE Other: CNDDB	Inhabits riparian woodlands in southern California. Nests in extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters, between 610-2,440 meters (2,000-8,000 feet). Dense willow thickets are required for nesting and roosting. Low, exposed branches are used for singing posts/hunting perches.	**Not expected.** Potentially suitable habitat for this species is absent.
California black rail *Laterallus jamaicensis coturniculus*	Federal: None State: ST Other: BCC, FP	Inhabits saline, brackish, and fresh emergent wetlands.	**Not expected.** Potentially suitable habitat for this species is absent.
Belding's savannah sparrow *Passerculus sandwichensis beldingi*	Federal: None State: SE Other: CNDDB	Inhabits southern coastal wetlands.	**Not expected.** Potentially suitable habitat for this species is absent.
California brown pelican *Pelecanus occidentalis californicus*	Federal: Delisted State: Delisted Other: FP	Inhabits salt bays, beaches and oceans. Mostly over shallower waters, especially sheltered bays. May occasionally be found on inland freshwater lakes.	**Not expected.** Potentially suitable habitat for this species is absent.
coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: None Other: SSC	Obligate, permanent resident of coastal sage scrub below 760 meters (2.500 feet) in southern California. Inhabits low, coastal sage scrub in arid washes, on mesas and slopes.	**Not expected.** Potentially suitable habitat for this species is absent.
bank swallow *Riparia riparia*	Federal: None State: ST Other: CNDDB	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, and ocean to dig nesting hole.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE B. REGIONAL SPECIAL-STATUS WILDLIFE SPECIES[1]

Common Name *Scientific Name*[2]	Status[3]	General Habitat Description[4]	Potential for Occurrence in the Project Site
California least tern *Sternula antillarum browni*	Federal: FE State: SE Other: FP	Found along coastal beaches, bays, large rivers, and salt flats. Known to feed in shallow coastal waters and occasionally inland.	**Not expected.** Potentially suitable habitat for this species is absent.
least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE Other: CNDDB	Summer resident of southern California in low riparian habitat in vicinity of water or in dry river bottoms, below 2,000 feet (610 meters).	**Not expected.** Potentially suitable habitat for this species is absent.
Mammals			
pallid bat *Antrozous palidus*	Federal: None State: None Other: SCC, WBWG-H	Occurs in deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rock areas for roosting. Roosts must protect bats from high temperatures; very sensitive to disturbance of roosting sites.	**Not expected.** Potentially suitable habitat for this species is absent.
western mastiff bat *Eumops perotis californicus*	Federal: None State: None Other: SCC, WBWG-H	Known from open semiarid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grassland, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels. Roost locations are generally high above the ground providing a 3-meter minimum clearance below the entrance for flight. Requires large open water drinking sites.	**Not expected.** Potentially suitable habitat for this species is absent.
silver-haired bat *Lasionycteris noctivagans*	Federal: None State: None Other: WBWG-M	Occurs in coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and valley foothill and montane riparian habitats. Roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark.	**Not expected.** Potentially suitable habitat for this species is absent.

TABLE B. REGIONAL SPECIAL-STATUS WILDLIFE SPECIES[1]

Common Name *Scientific Name*[2]	Status[3]	General Habitat Description[4]	Potential for Occurrence in the Project Site
hoary bat *Lasiurus cinereus*	Federal: None State: None Other: WBWG-M	May be found at any location in California. Winters along the coast and in southern California, breeding inland and north of the winter range. During migration, may be found at locations far from the normal range. Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees, feeds primarily on moths; requires water.	**Not expected.** Potentially suitable habitat for this species is absent
south coast marsh vole *Microtus californicus stephensi*	Federal: None State: None Other: SCC	Occurs in wetland habitats and associated grasslands along the coast.	**Not expected.** Potentially suitable habitat for this species is absent.
pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: None Other: SSC, WBWG-M	Occurs in desert scrub and arid lowlands, not far from riparian areas. Roosts in small groups in rock crevices, caves and buildings.	**Not expected.** Potentially suitable habitat for this species is absent.
big free-tailed bat *Nyctinomops macrotis*	Federal: None State: None Other: SCC, WBWG-MH	Occurs in low-lying arid hilly areas in Southern California to about 1,830 meters (6,000 feet). Roosts in crevices and cliffs, buildings, and cavities in trees.	**Not expected.** Potentially suitable habitat for this species is absent.
Pacific pocket mouse *Perognathus longimembris pacificus*	Federal: FE State: None Other: SSC	Inhabits areas with fine-grained sandy substrates in coastal dunes, river alluvium, and coastal sage scrub habitats within 3 miles of the ocean.	**Not expected.** Potentially suitable habitat for this species is absent.
southern California saltmarsh shrew *Sorex ornatus salicornicus*	Federal: None State: None Other: SSC	Occurs in coastal salt marshes, preferring those dominated by pickleweed and saltgrass.	**Not expected.** Potentially suitable habitat for this species is absent.
American badger *Taxidae taxus*	Federal: None State: None Other: SCC	Occurs in dry, open stages of shrub, forest, and herbaceous habitats. Prefers areas with fine-textured or sandy soils for digging burrows.	**Not expected.** Potentially suitable habitat for this species is absent.

[1] Special-Status species known from the CNDDB to occur on the Inglewood, Beverly Hills, Hollywood, Los Angeles, Venice, South Gate, Redondo Beach, Torrance, and Long Beach quadrangles.

[2] Nomenclature for special-status wildlife conforms to CNDDB.

[3] Sensitivity Status Codes

Federal	**FT** - Federally Threatened under Federal Endangered Species Act (FESA)
	FE - Federally Endangered under FESA
State	**ST** - State Threatened under California Endangered Species Act (CESA)
	SE - State Endangered under CESA
	SC – State Candidate for listing under CESA
Other	**SSC** – Designated as a Species of Special Concern by CDFW
	WL – Designated as a Watch List species by CDFW
	CNDDB - Tracked by CDFW in the California Natural Diversity Data Base or considered locally sensitive
	WBWG-H - Designated by the Western Bat Working Group (WBWG 2017) as High Priority - species that are imperiled or are at high risk of imperilment
	WBWG-M - Designated by the WBWG (2017) as Medium Priority – a level of concern that should warrant closer evaluation, more research, and conservation actions of both species and possible threats.

[4] General Habitat Descriptions from CNDDB.

APPENDIX C
Cultural Resources Technical Memorandum

AECOM
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Memorandum

To	Los Angeles Department of Water and Power
Subject	Figueroa Property Remediation and Park Project Cultural Resources Assessment
From	Marc A. Beherec, Ph.D., RPA
Date	June 21, 2021

Attachment– DPR 523 Forms

Introduction

This technical memorandum describes the potential impact to cultural resources associated with the Figueroa Property Remediation and Park Project (also referred to herein as the project or proposed project) located in the City of Los Angeles, Los Angeles County, California (Figures 1 and 2). The Los Angeles Department of Water in Power (LADWP) proposes to enter into a long-term lease agreement with the Los Angeles Department of Recreation and Parks (LARAP) for an approximately 0.5-acre vacant LADWP-owned property (the Figueroa property), which would then be developed as a neighborhood park by an independent non-profit community organization under agreement with LARAP. The park would then become a facility operated and maintained by LARAP.

Proposed Project

The approximately 20,000 square-foot Figueroa property is located in Los Angeles at 5800 South Figueroa Street, on the southeast corner of Figueroa Street and West 58th Street. It is immediately bounded on the south by a BNSF railroad right-of-way, which in turn is bounded along the south by Slauson Avenue, a five-lane thoroughfare. A filling station is located on the south side of Slauson. On the west, the property is bounded by Figueroa Street, a seven lane thoroughfare, including turning lanes. Medical offices and a vacant lot are located on the west side of Figueroa. On the north, the property is bounded by West 58th Street, which is an unstriped two-lane local road. The LADWP electrical Distributing Station Number 4 is located on the north side of West 58th. To the east, the property abuts a single-family residential property, with no intervening roadway. The vicinity around the property is a densely-developed urban area consisting primarily of single-family residences and commercial uses, with some multi-family housing. The Harbor Freeway (I-110), a north-south interstate highway, is located approximately 250 feet east of the property. Figure 1 depicts the regional location and Figure 2 depicts the vicinity of the Figueroa property.

LADWP has no plans to reutilize the property, which has remained vacant and unused for over 60 years. Therefore, given the general lack of open space and recreation resources in the surrounding community, in cooperation with Los Angeles Council District 9 and LARAP, LADWP intends to lease the property to LARAP to allow for the development of a neighborhood park.

Figueroa Pump Station and Past Ground Disturbance

The property was the location of the Figueroa Pump Station, part of the LADWP potable water delivery system, from approximately 1908 to 1959, at which time the pump station ceased operation. When active, the pump station included a pump house that held two pumps and a boiler, a 175,000-gallon water reservoir, and an underground fuel oil tank, which was fed by an offsite oil pipeline that ran parallel to the property's southern boundary, within the railroad right-of-way.

Some time after operations were ceased, the pump station building and other ancillary facilities, including an aboveground fuel storage tank and aboveground well structure, were demolished. The roof of an on-site underground water storage reservoir was removed, and the reservoir was backfilled. Since 1959, the property has remained vacant and unused. LADWP has maintained the property with perimeter fencing and has regularly conducted cleanup of trash and debris that may have accumulated on the property (Dames and Moore 1999).

Due to the past use of the property as a pump station, which included fuel storage and boilers among other facilities, contaminated soil has been detected in various areas of the property through several site investigations involving soil borings conducted in 2003, 2005, and 2013. The identified contaminants of concern consist of lead and various hydrocarbons. In 2009, the approximate footprint of the previous fuel storage tank was partially excavated, and in 2017, the uppermost 3 feet of soil was removed across the entire property except for an approximately 20-foot wide area along the southern boundary, adjacent to the railroad right-of-way. While these efforts removed much of the contaminated soil from the property, some isolated areas remain.

Site Remediation

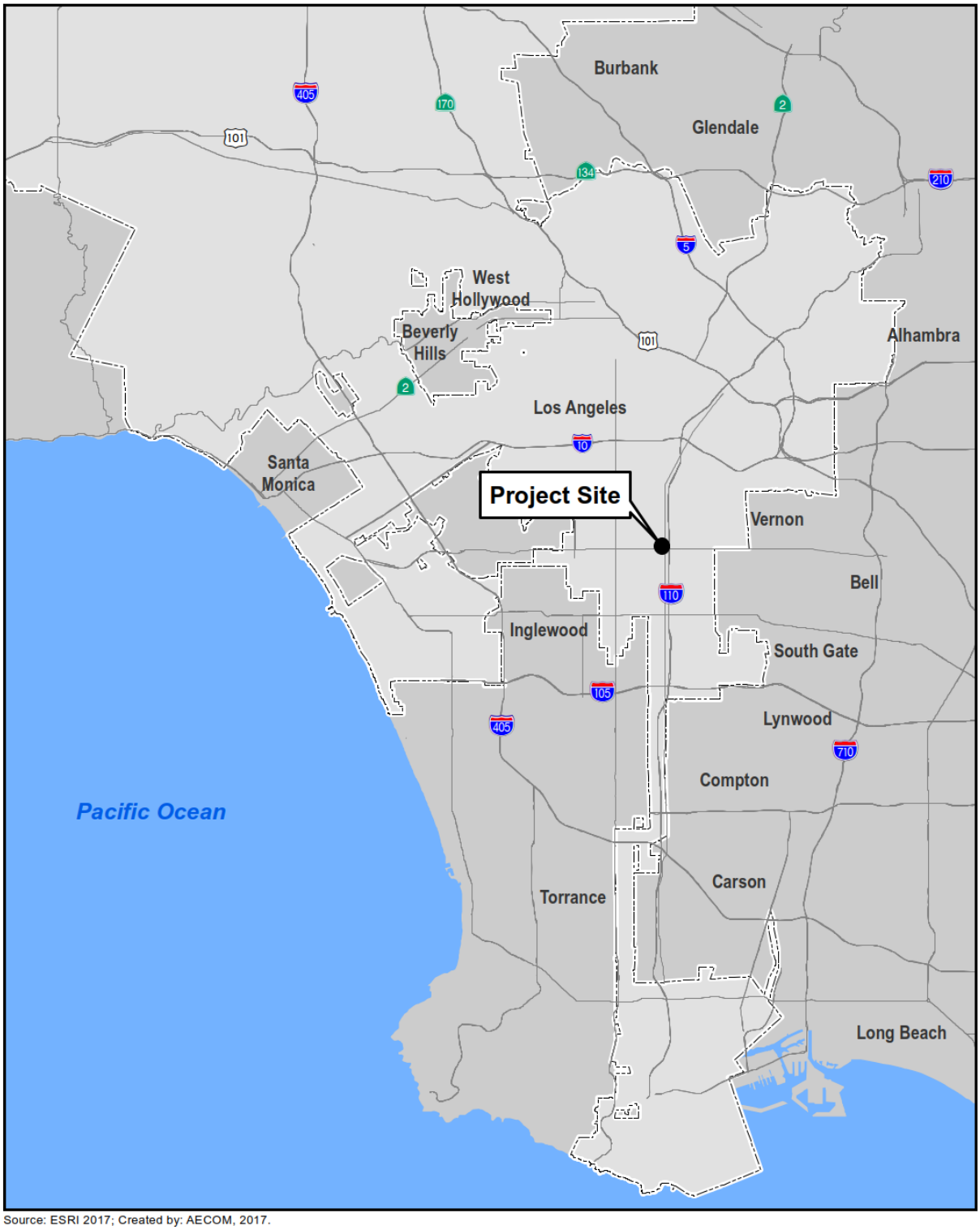
To prepare the property for park development, LADWP would complete the cleanup of the remaining contaminated soil to achieve the standards for California Department of Toxic Substances Control (DTSC) Human Health Risk Assessment (HERO) Note 3 residential screening levels. For contaminants where a DTSC screening level has not been established, the cleanup would achieve United States Environmental Protection Agency (USEPA) regional screening levels for residential soil. Under these screening standards, the property would be suitable for unrestricted uses, including a park, once the contaminated soils have been removed. The site preparation would also include completely backfilling with clean imported soil to restore the surface of the property to the elevation of the surrounding area.

Most of the contaminated soil detected on the Figueroa property was at depths of less than 3 feet below the surface and was therefore removed when the uppermost 3 feet of soil was removed in 2017. The remaining locations where contamination was detected at depths greater than 3 feet are all encompassed within the footprints of the former pump station building, water reservoir, or fuel storage tank. The proposed remediation effort for the property would include the removal of soil across the entire footprints of these former facilities at depths greater than the lowest depth of detected contamination. These excavation depths would range from 1 foot to 20 feet in various areas.

The remediation of the property would involve the use of an excavator to remove contaminated soil and a loader to load the soil onto dump trucks, which would haul the soil to a landfill approved to accept such material. Specifically, the remediation effort would entail the removal of approximately 2,600 cubic yards of soil in areas defined based on 32 exploratory soil bores conducted across the property in 2003, 2005, and 2013 and on material that has previously been removed in the past cleanup effort. The backfilling of the property would involve the importation and placement of soil such that the elevation of the site is approximately the same as the surrounding area (that is, the elevation prior to any of the past or proposed excavation of soil.

Park Development

Although actual design of the park is yet to be accomplished, it is anticipated that it would include pathways, seating elements, shade structures, exercise stations, and children's play equipment. The park would be entirely enclosed by a perimeter fence, allowing it to be physically secured during non-operating hours (between sunset and sunrise). The park is anticipated to serve the immediate surrounding community and would, therefore, not include any vehicle parking.



Source: ESRI 2017; Created by: AECOM, 2017.

0 3 6 Miles

City of Los Angeles Boundary

Figure 1

Regional Location Map

Source:Google Earth Image 2021

0 40 80 Feet

Figueroa Property

Figure 2

Figueroa Property

Cultural Setting

As a framework for discussing the types of cultural resources that might be encountered in the vicinity of the proposed project, the following section summarizes our current understanding of major prehistoric and historic developments in and around Los Angeles.

Prehistoric Overview

The earliest occupation of Southern California may be associated with the peoples who first colonized North America in the terminal Pleistocene and earliest Holocene (Arnold et al. 2004). These cultures are characterized by fluted points. Among Southern California's fluted points is a fluted obsidian point found in a stratified deposit beside an ancient lake bed in the mountains of eastern San Diego County (Kline and Kline 2007). Other fluted points have been reported at other locations in Santa Barbara and San Diego Counties (Rondeau 2009). Closest to the project area, the Farpoint Site (CA-LAN-451) in Malibu, Los Angeles County, has yielded a fluted point, and its excavator argues the site should be associated with the Clovis culture (Stickel 2008). Clovis is the earliest universally recognized material culture in North America, and dates to approximately 11,500 radiocarbon years before present (B.P.).

However, scholarly consensus holds that the earliest unambiguous evidence of human occupation in the Los Angeles area dates to at least 9000 B.P. and is associated with a period known as the Millingstone Cultural Horizon (Wallace 1955; Warren 1968). Millingstone populations established permanent settlements that were located primarily on the coast and in the vicinity of estuaries, lagoons, lakes, streams, and marshes where a variety of resources, including seeds, fish, shellfish, small mammals, and birds, were exploited. Early Millingstone occupations are typically identified by the presence of handstones (manos) and millingstones (metates), while those Millingstone occupations dating later than 5000 B.P. contain a mortar and pestle complex as well, signifying the exploitation of acorns in the region.

Although many aspects of Millingstone culture persisted, by 3500 B.P., a number of socioeconomic changes occurred (Erlandson 1994; Wallace 1955; Warren 1968). These changes are associated with the period known as the Intermediate Horizon (Wallace 1955). Increasing population size necessitated the intensified use of existing terrestrial and marine resources (Erlandson 1994). This was accomplished in part through use of new technological innovations such as the circular shell fishhook on the coast, and in inland areas through use of the mortar and pestle to process an important new vegetal food staple (acorns), and the dart and atlatl resulting in a more diverse hunting capability. Evidence for shifts in settlement patterns has been noted as well at a variety of locations at this time and is seen by many researchers as reflecting increasingly territorial and sedentary populations. The Intermediate Horizon marks a period in which specialization in labor emerged, trading networks became an increasingly important means by which both utilitarian and nonutilitarian materials were acquired, and travel routes were extended.

The Late Prehistoric period, spanning from approximately 1500 years B.P. to the Spanish mission era, is the period associated with the florescence of contemporary Native American groups. The group occupying the southern Channel Islands and adjacent mainland areas of Los Angeles and Orange Counties came to be known as the Gabrielino, after Mission San Gabriel. They are reported to have been second only to their northern Chumash neighbors in terms of population size, regional influence, and degree of sedentism (Bean and Smith 1978). The Gabrielino are estimated to have numbered around 5,000 in the pre-contact period (Kroeber 1925). Narratives produced by early explorers indicate the existence of at least 40 Gabrielino villages, but as many as 100 may have existed prior to contact with Europeans (Bean and Smith 1978; McCawley 1996; Reid 1939 [1852]).

Prehistoric subsistence consisted of hunting, fishing, and gathering. Small terrestrial game was hunted with deadfalls and rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison (Bean and Smith 1978; Reid 1939 [1852]). The primary plant resources were acorns gathered in the fall and processed with mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly-leafed cherry (Reid 1939 [1852]).

Historic Overview

Spanish explorers made brief visits to Gabrielino territory in 1542 and 1602, and on both occasions the two groups exchanged trade items (McCawley 1996). Sustained contact with Europeans did not commence until the onset of the Spanish Period, which began in 1769 when Gaspar de Portola and a small Spanish contingent began their exploratory journey along the California coast from San Diego to Monterey.

Most Gabrielino villages are reported by early explorers to have been located along the coast and near the Los Angeles River, in the area north of downtown known as the Glendale Narrows, and those areas along the river's various outlets into the sea. One of the most prominent was the village of *Yangna*, in the vicinity of present-day downtown Los Angeles. At the time of Portola's visit, the village of *Yangna* is reported to have supported a population of at least 200 (Gumprecht 1999) and was later reported to have contained anywhere from 500 to 1,500 huts, implying an even greater population (Reid 1939 [1852]).

By the early 1800s, the majority of the surviving Gabrielino population had entered the mission system, either at Mission San Gabriel, founded in 1771, or at Mission San Fernando Ray de Espana, established in 1797. Other Native Americans worked at *El Pueblo de la Reyna de Los Angeles,* a secular community founded by colonists in 1781. Over time, the missions became self-sufficient through farming and selling cattle hides, tallow, and various fruit crops to the nearby Pueblo (Paddison 1999; Wright 1992). Mission life was utilized by the Spanish in a time when Native American traditional trade and political alliances were failing, and epidemics and subsistence instabilities were increasing. This lifestyle change brought significant negative consequences for Gabrielino health and cultural integrity (Jackson 1999).

The growth of *El Pueblo de la Reyna de Los Angeles* continued after the Mexican empire gained independence and formed what would become the Mexican state of Alta California in 1821. The authority of the California missions gradually declined, culminating in their secularization in 1834. Although the Mexican government directed that each mission's lands, livestock, and equipment be divided among its converts, the majority of these holdings quickly fell into non-indigenous hands. Mission buildings were abandoned and quickly fell into decay. After two generations of dependence on the missions, Native Americans were suddenly disenfranchised. After secularization, "nearly all of the Gabrielinos went north while those of San Diego, San Luis, and San Juan overran this county, filling the Angeles and surrounding ranchos with more servants than were required" (Reid 1977 [1851]:104).

The first party of U.S. immigrants arrived in Los Angeles in 1841, although black market commerce had previously been conducted between Mexican California and residents of the United States and its territories. As the possibility of a takeover of California by the United States loomed large, the Mexican government increased the number of land grants in an effort to keep the land in the hands of upper-class *Californios* like the Domínguez, Lugo, and Sepúlveda families (Wilkman and Wilkman 2006:14–17). Governor Pío Pico and his predecessors made more than 600 rancho grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Gumprecht 1999).

The United States took control of California after the Mexican–American War of 1846, and seized Monterey, San Francisco, San Diego, and Los Angeles (then the state capital) with little resistance. Local unrest soon bubbled to the surface, however, and Los Angeles slipped from U.S. control in 1847. Hostilities officially ended with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, which included California, Nevada, and Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. The conquered territory represented nearly half of Mexico's pre-1846 holdings. California joined the United States in 1850 as the 31st state (Wilkman and Wilkman 2006:15).

The discovery of gold in northern California led to an enormous influx of American citizens in the 1850s and 1860s, and these settlers rapidly displaced the old rancho families. In 1873, the U.S. government confirmed legal title to old Rancho ex-Mission San Fernando at 116,858.43 acres, the largest private land parcel in California. The Southern Pacific Railroad extended its line from San Francisco to Los Angeles in 1876, passing through the San Fernando Valley thanks to a new tunnel through Newhall Pass. Newcomers continued to pour into Los Angeles and the population nearly doubled between 1870 and 1880. The completion of the second transcontinental line, the Santa Fe, took place in 1886 causing a fare war, which drove fares to an unprecedented low. More settlers continued to head west and the demand for real estate skyrocketed. The city's population rose from 11,000 in 1880 to 50,000 by 1890 (Meyer 1981:45).

The beginning of the twentieth century saw the florescence of a uniquely suburban metropolis, where a vast network of residential communities overshadowed city centers, where the single-family home was valued over the high-rise, and where private space took precedence over public space (Hawthorne 2006). This landscape demanded an innovative transportation solution, and Los Angeles embraced automobiles and freeways like no other city had. The first homemade car puttered down city streets in 1897. Seven years later, the first grand theft auto was reported by Los Angeles Police (Wilkman and Wilkman 2006:50). Inexpensive automobiles gained popularity in the 1920s, soon creating tremendous congestion in the centers of cities and necessitating alternate transportation routes. Dozens of freeways were constructed in the post-World War II years, radically altering the character of Los Angeles by simultaneously dividing local neighborhoods and connecting outlying communities.

Archival Research

A records search of the Figueroa Park project area and a 0.25-mile radius was requested on April 13, 2021 from the South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton. The SCCIC responded on May 19, 2021, in Records Search File No. 22336.8493.

The archival research included review of previously recorded archaeological site records and reports, historic site and property inventories, and historic maps. Inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California State Historic Resources Inventory (HRI), California Historical Landmarks and Points of Interest, and the list of City of Los Angeles Historic-Cultural Monuments (LAHCMs) were also reviewed to identify cultural resources within a 0.25-mile radius of the project area.

Previous Cultural Resources Investigations Reports

A total of one previous cultural resources investigation documented at the SCCIC has been conducted within 0.25 mile of the project area (Table 1). The study overlapped the entire planned project area; however, it did not include a field survey that specifically examined the project site.

Table 1. Previous Investigations Conducted within 0.25 Mile of the Project Area

Report #	Author	Description	Date
LA-04097	Anonymous	Council District nine Revitalization/Recovery Program Final Environmental Impact Report	1995

Previously Recorded Cultural Resources

The SCCIC records search identified no previously recorded cultural resources mapped within 0.25 mile of the project area.

Built Environment Resources Directory

Study of the California Office of Historic Preservation (OHP)'s Built Environment Resources Directory (BERD) focused on properties within 0.25 mile of the project area that faced streets bordering the project area. The BERD lists no historic resources meeting these criteria.

California Historical Landmarks

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical interest. A search of the California Historical Landmarks list revealed no California Historic Landmarks within 0.25 mile of the project area.

Los Angeles Historic-Cultural Monuments

LAHCMs are sites in Los Angeles that have been designated by the Los Angeles Cultural Heritage Commission as worthy of preservation based on their architectural, historic, and cultural merits. A search of the LAHCMs found no monuments within 0.25 mile of the project area.

Historic Maps and Aerial Photographs
Relevant historic and ethnographic maps and aerial photographs at the SCCIC, online, and in AECOM's possession were consulted to understand past land use and disturbance and to identify possible locations of archaeological sensitivity within the project area. U.S. Geological Survey (USGS) topographic maps and historic Sanborn maps were all consulted in this analysis.

Maps prepared by anthropologists or at the direction of local tribes were consulted. These include maps published by A.L. Kroeber and William McCawley (Kroeber 1925; McCawley 1996); *Tongva Villages: Gabrieleno-Fernandeno of the Los Angeles Basin,* prepared by Keepers of Indigenous Ways (Sutimiv-Pa'alat 2010); and *Kizh Tribal Territory (Gabrieleno Indian Lands),* prepared by archaeologist Gary Stickel for the Gabrieleno Band of Mission Indians-Kizh Nation (Flaherty 2016). There are no mapped Native American villages within or adjacent to the project area.

The project area is shown in the 1896, 1899, and 1902 Redondo 1:62500 USGS topographic map where it appears as undeveloped flatland beside the Atchison, Topeka, and Santa Fe Railroad and Slauson Avenue. A line of buildings, labeled "Slauson," stand south of Slauson Avenue to the south of the project area. No watercourses or other natural or anthropogenic features that would increase the archaeological sensitivity of the parcel are visible. On the 1924 and 1927 Watts 1:24000 USGS topographic maps, the entire project vicinity is a built-up cityscape.

The 1922 Sanborn map of the project area shows the Department of Water and Power Figueroa Pump House at this location (Sanborn 1922: Volume 5, Sheet 510). A large, circular concrete receiving reservoir occupies the north-central part of the parcel, and a fuel oil tank takes up the south-central area of the parcel (Plate 1). A large, long building, solidly constructed with buttressed walls and housing compressors and boilers, occupies the eastern part of the parcel along Figueroa Street. Frame buildings occupy the southwest corner of the parcel.

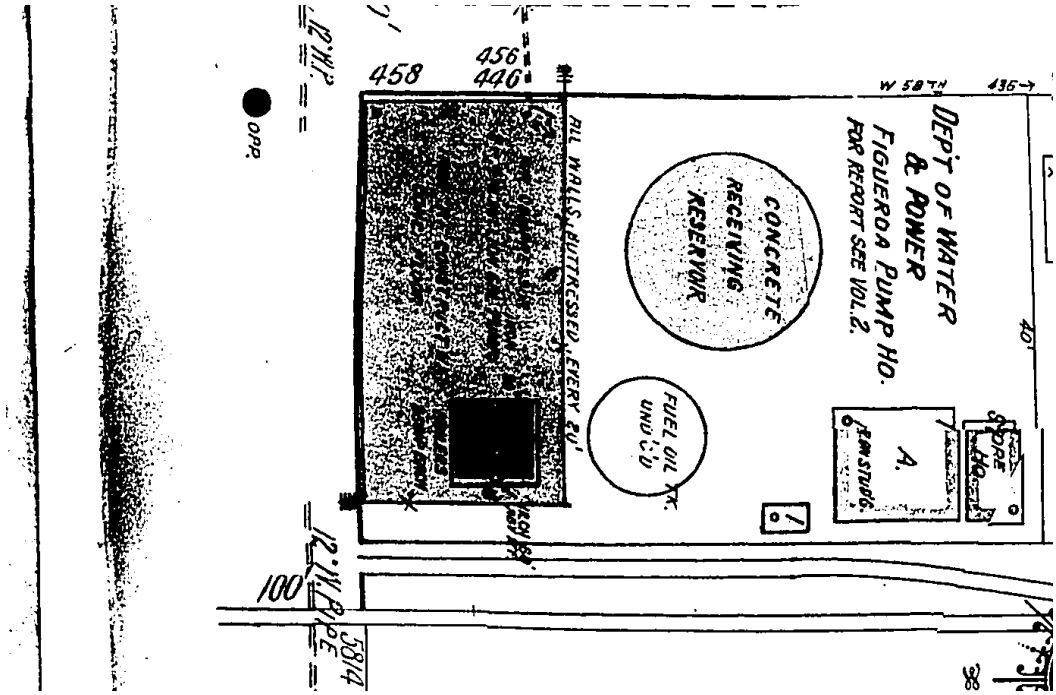


Plate 1: Sanborn Map of the LADWP Figueroa Pump House in 1922 (Sanborn 1922: Volume 5, Sheet 510).

Aerial photographs of the property are limited to the last years of operation and the years of abandonment and demolition (Nationwide Environmental Title Research 2021). An aerial photograph dated 1952 shows the pump house, the roof of the concrete reservoir, and the frame buildings. The fuel oil tank is not visible and is presumably entirely underground. An

aerial photograph dated 1963 shows the frame buildings have been demolished. By 1972 the pump house structure has been demolished, and no evidence of the concrete reservoir is visible on the surface.

Archaeological Survey

An archaeological field survey of the project area was conducted on April 26, 2021, by AECOM archaeologist Frank Humphries, M.S., RPA. Mr. Humphries meets the Secretary of the Interior's Professional Qualification Standards in Archaeology. The purpose of the survey was to identify and record cultural resources that are at least 45 years old and evaluate any discovered resources for historical significance based on criteria for listing in the CRHR.

The entire property was walked in transects spaced approximately 15 feet apart. The ground visibility was less than 40 percent due to obscuring vegetation.

Most of the project area has been heavily affected by prior mechanical excavations, which have impacted up to 17 feet below ground surface. The soil has been removed from most of the project area during past remediation efforts. The current ground surface across most of the property is approximately 3 to 4 feet below the present street level.

There is one narrow strip along the southern boundary of the property, measuring approximately 20 feet wide, where the soil that remains intact. Ground level at the south edge of the property is equal to street level and the remaining ground surface within the project area is recessed by 3 to 4 feet.

One resource, a fragmentary building foundation, was observed and documented during the field survey.

Identified Resources

Pump House Building Foundation

A partial building foundation and associated utilities were observed during the field survey. The resource is located in the southwest portion of the project area, 45 feet east of the western property fence, and projecting from the relict strip of land left behind by past soil remediation efforts (Plate 2).

The exposed segment of the foundation measures 31 inches tall. It consists of poured-in-place concrete, with the remains of the wood framing still present. Less than three feet of the foundation is exposed. It continues south beyond the current exposure (Plate 3).

The utilities consist of two pipes, one vitrified clay and one steel. Both pipes extend north-south. The steel pipe measures 12 inches in diameter and is located immediately above the clay pipe. The vitrified clay pipe measures 7 inches in diameter and is located approximately 24 inches below the ground surface. The steel pipe appears to be a former storm drain segment and the clay pipe is likely an abandoned sewer pipe.

Based on the known site history, comparison with the historic Sanborn map of the project area (Plate 1), and the foundation's poured-concrete building technique, the foundation and utilities appear to be associated with the pump house building, which was built as early as 1908, abandoned in 1959, and finally demolished between 1963 and 1972.

Plate 2: Building Foundation Location Overview, View Southwest

Plate 3: Building Foundation, View Southwest.

California Register Evaluation

California Register of Historical Resources

The California Register was created to identify resources deemed worthy of preservation on a state level and was modeled closely after the National Register. The criteria are nearly identical to those of the National Register but focus on resources of statewide, rather than national, significance. The California Register consists of properties that are listed automatically as well as those that must be nominated through an application and public hearing process.

The criteria for eligibility of listing in the California Register are based on National Register criteria, but are identified as 1- through 4 instead of A through D. To be eligible for listing in the California Register, a property must be at least 50 years of age and possess significance at the local, state, or national level, under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or

2. It is associated with the lives of persons important to local, California, or national history; or

3. It embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values; or

4. It has yielded, or has the potential to yield, information important in the prehistory or history of the local area, California, or the nation.

Historical resources eligible for listing in the California Register may include buildings, sites, structures, objects, and historic districts. A resource less than 50 years of age may be eligible if it can be demonstrated that sufficient time has passed to understand its historic importance. While the enabling legislation for the California Register is less rigorous with regard to the issue of integrity, there is the expectation that properties reflect their appearance during their period of significance.

Application of CRHR Criteria

Criterion 1
The Figueroa Pump Station is associated with water retrieval and conveyance systems in South Los Angeles in the 20th century. The site was developed about 1908, and abandoned in 1959. However, although the site was important to the early twentieth century development of the Los Angeles water supply, the Figueroa Pump Station does not appear to have played a significant individual role in local, state, or national history individually. It is representative of such facilities constructed throughout Los Angeles and California in the 20th century. It does not meet CRHR Criterion 1.

Criterion 2
Archival research has not identified any specific individuals or groups associated with the development of Los Angeles' water infrastructure. Although the resource was important to the development of LADWP's infrastructure in South Los Angeles, research has not revealed a direct association with any individuals involved with the construction or design of the facility's few surviving elements. The Figueroa Pump Station has no direct association with important historic persons and, thus, does not meet CRHR Criterion 2.

Criterion 3
The Figueroa Pump Station was representative of common pump stations throughout Los Angeles and throughout California. The pump station is similar to many other facilities constructed in the first half of the twentieth century. These pump stations were apparently designed from a standard set of plans used across Los Angeles. They have no known associations with individual engineers and do not represent the work of a master. The remaining foundation does not possess high artistic values because it consists of basic construction

designed for function and utility and not for aesthetic quality. In summary, the Figueroa Pump Station does not have distinctive engineering or architectural features to meet CRHR Criterion 3.

Criterion 4
The surviving fragment of the Figueroa Pump Station facility is not likely to yield information important to history or prehistory. The construction history and use of the pump station is known. Furthermore, the majority of the pump station facilities, including any evidence of any of its buildings and structures that was visible on the surface, has been removed by past demolition and soil remediation. The data potential of the small foundation segment that remains has been exhausted by the current recordation. Therefore, the surviving pump station foundation does not meet CRHR Criterion 4.

In summary, the surviving foundation of the Figueroa Pump Station does not meet any CRHR criteria for designation.

Recommendations

The following sections present recommendations for further action regarding archaeological resources, historical resources, and potential tribal cultural resources within the project area. These recommendations are based on information collected from archival research, which examined records kept at the SCCIC, local cultural resource listings, historic and ethnographic maps, contemporary archaeological literature, local prehistoric land use patterns and resource availability, and the results of the field survey. All of these investigations and resource documentation serve to inform the recommendations provided for cultural resources in the project area.

Archaeological Recommendations

Based on the results of the archival research and field survey, there is low potential that archaeological resources will be encountered during ground-disturbing activities for the proposed project. The project area has been utilized by humans for thousands of years, and is located within the ancestral tribal territory of the Gabrielino. However, the background research did not identify any specific Gabrielino villages or toponyms within the project area or within one mile of the project area. No streams or bodies of water or other unusual or significant resource procurement areas were identified within or near the project area.

In addition, the parcel has a long history of ground disturbance which would be expected to destroy any archaeological sites. As early as the first quarter of the twentieth century deep excavations were required to install the pumps and storage tanks at the site. Lesser disturbances were necessary for building foundations and utilities. The demolition of the original pump station facilities in the middle part of the last century created additional disturbance. More recent remediation efforts included deep excavation in portions of the site and the removal top soil across almost the entire parcel down to a depth of at least 3 feet.

If archaeological resources are encountered during ground disturbing activities, LADWP will contact a qualified archaeologist to evaluate and determine appropriate treatment for the resource in accordance with California Public Resource Code (PRC) Section 21083.2(i). If any archaeological resources are encountered during ground-disturbing activities, work will be temporarily halted in the vicinity of the find and the archaeologist will be called to the project site to examine and evaluate the resource in accordance with the provisions of CEQA.

In the unlikely event human remains are discovered, work in the immediate vicinity of the discovery will be suspended and the Los Angeles County Coroner contacted. If the remains are deemed Native American in origin, the Coroner will contact the NAHC and identify a Most Likely Descendant pursuant to PRC Section 5097.98 and California Code of Regulations Section 15064.5. Work may be resumed at the landowner's discretion but will only commence after consultation and treatment have been concluded. Work may continue on other parts of the project while consultation and treatment are conducted.

If a previously unknown archaeological resource of Native American origin is encountered, consultation with interested Native American parties is recommended to apprise them of the findings and solicit any comments they may have regarding appropriate treatment and disposition of the resources. LADWP may then determine whether the resource meets the criteria of a tribal cultural resource.

References

Arnold, J. E., M. R. Walsh, and S. E. Hollimon
2004 The Archaeology of California. *Journal of Archaeological Research* 12:1–73.

Bean, Lowell John, and Charles R. Smith
1978 Gabrielino. In *Handbook of North American Indians*, Vol. 8, pp. 538–562. Robert F. Heizer, editor. Smithsonian Institution, Washington, D.C.

Dames and Moore
1999 *Phase I Environmental Site Assessment, Former Figueroa Pump Station.* Document prepared by Dames and Moore for Los Angeles Department of Water and Power.

Erlandson, Jon M.
1994 *Early Hunter-Gatherers of the California Coast.* Plenum Press, New York.

Flaherty, James
2016 Map: *Kizh Tribal Territory (Gabrieleno Indian Lands).* Covina, CA: Kizh Tribal Press.

Gumprecht, Blake
1999 *The Los Angeles River: Its Life, Death and Possible Rebirth*. John Hopkins University Press, Baltimore, MD.

Hawthorne, Christopher
2006 Hooray for Sprawlywood. *Los Angeles Times.* 3 December:S6. Los Angeles.

Jackson, Robert H.
1999 Agriculture, Drought & Chumash Congregation in the California Missions (1782-1834), *California Mission Studies Association*. Articles, May Newsletter.

Kielbasa, John
1997 *Historic Adobes of Los Angeles County.* Pittsburgh: Dorrance Publishing Company.

Kline, George E., and Victoria L. Kline
2007 Fluted Point Recovered from San Diego County Excavation. *Proceedings of the Society for California Archaeology* 20:55–59.

McCawley, William C.
1996 *The First Angelinos: The Gabrielino Indians of Los Angeles.* Malki Museum Press, Banning.

Meyer, L.
1981 *Los Angeles, 1781–1981*. A special bicentennial issue of California history, Spring 1981. California Historical Society, Los Angeles.

Murray, Samantha, Kara Dotter, and Adriane Dorrler
2017 *Cultural Resources Study for the Haynes Generating Station Units 3 through 6 Demolition Project, Los Angeles County, California.* Document prepared by Dudek for Los Angeles Department of Water and Power.

Nationwide Environmental Title Research, LLC (NETR)
2021 Historic Aerials. Online at: https://historicaerials.com/viewer Accessed August 13, 2018.

Paddison, Joshua
1999 *A World Transformed: Firsthand Accounts of California Before the Gold Rush.* Heyday Books, Berkeley, CA. ISBN 1-890771-13-9.

Phillips, George Harwood
2010 *Vineyards and Vaqueros: Indian Labor and the Economic Expansion of Southern California, 1771–1877.* Norman, OK: Arthur H. Clark Co.

Reid, Hugo
1939 [1852] Letters on the Los Angeles County Indians. In *A Scotch Paisano in Old Los Angeles*, by Susanna Bryant Dakin, pp. 215–286. University of California Press.

1977 [1851] The Decay of the Mission. In *Los Angeles, Biography of a City*, edited by John Caughey and LaRee Caughey, pp. 102–104. Berkeley, CA: University of California Press.

Robinson, W. W.
1942 *Long Beach: A Calendar of Events in the Making of a City.* Title Guarantee and Trust Company. Los Angeles, CA.

Rondeau, Michael F.
2009 Fluted Points of the Far West. *Proceedings of the Society for California Archaeology* 21:265–-274.

Salzer, George
1975 *Rancho los Alamitos.* Ramona, CA: Acoma Books.

Sanborn Map Company
1922 *Insurance Maps of Los Angeles, California, Volume 5.* New York: Sanborn Map Company.

Stickel, E. Gary
2008 The Farpoint Site (CA-LAN-451): A Unique Clovis Culture Site of the First Americans on the Malibu Coast. Online at http://farpointsite.blogspot.com/2008/02/farpoint-site-ca-lan-451-unique-clovis.html. Accessed December 27, 2013.

Sutimiv-Pa'alat
2010 Map: *Tongva Villages: Gabrieleno-Fernandeno of the Los Angeles Basin.* San Pedro, CA: Keepers of Indigenous Ways.

Wallace, William J.
1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3):214–230.

Warren, Claude N.
1968 Cultural Traditions and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by Cynthia Irwin-Williams. Eastern New Mexico University Contributions in Anthropology 1(3):1–14.

Wilkman, Nancy, and Jon Wilkman
2006 *Picturing Los Angeles.* Gibbs Smith Publishers, Salt Lake City.

Wright, Ralph B., editor
1992 *California's Missions.* Hubert A. Lowman. Arroyo Grande, California.

Attachment
Department of Parks and Recreation (DPR) Forms

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI #**

PRIMARY RECORD

Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

 ***Resource Name or #:** Figueroa Street Pump Station pump house foundation

P1. Other Identifier:

***P2. Location:** ■ **Not for Publication** ☐ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Inglewood **Date:** 2016 **T** 2S; **R** 13W; SW of SE corner of Sec 18**;** SB **B.M.**

c. Address: 5800 S. Figueroa Street **City:** Los Angeles **Zip:** 90037

d. UTM: Zone: 11; 381567 **mE**/ 3761718 **mN** (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Parcel 5001-037-900, bounded by 58th Street to the north, the railroad right-of-way to the south, Figueroa Street to the west and by a single-family residence at 436 W. 58th Street to the east. From southbound Interstate 110, turn west onto Slauson Avenue, and then north onto Figueroa Street. The site is on the right immediately before 58th street.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The resource consists of a partial building foundation and associated utilities. The resource is located in the southwest portion of the project area, 45 feet east of the western property fence, projecting from the only portion of the property not impacted by past soil remediation efforts.

The exposed segment of the foundation measures 31 inches tall, but continues below the exposure. It consists of poured-in-place concrete, with the remains of the wood framing still present. Less than three feet of the foundation is exposed. It continues horizontally south beyond the current exposure.

The utilities consist of two pipes, one vitrified clay and one steel. Both pipes extend north-south. The steel pipe measures 12 inches in diameter and is located immediately above the clay pipe. The vitrified clay pipe measures 7 inches in diameter and is located approximately 24 inches below the ground surface. The steel pipe appears to be a former storm drain segment and the clay pipe is likely an abandoned sewer pipe.

The resource is in poor condition.

Based on the known site history, comparison with the historic Sanborn map of the project area, and the foundation's poured-concrete building technique, the foundation and utilities appear to be associated with the pump house building, which was built as early as 1908, abandoned in 1959, and finally demolished between 1963 and 1972.

***P3b. Resource Attributes:** (List attributes and codes) AH2. Foundation.

***P4. Resources Present:** ☐Building ☐Structure ☐Object ■Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #) Overview of concrete foundation and pipes, view west

***P6. Date Constructed/Age and Sources:**

■ Historic ☐Prehistoric ☐Both Construction date Ca. 1908.

***P7. Owner and Address:**

Los Angeles Department of Water and Power, 111 N. Hope Street, Los Angeles, CA 90012

***P8. Recorded by:** (Name, affiliation, and address)

Frank Humphries M.S., RPA, AECOM, 300 South Grand Avenue, Suite 200, Los Angeles, California 90071

***P9. Date Recorded:**

April 26, 2021

***P10. Survey Type:** (Describe) Intensive pedestrian survey.

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Marc A. Beherec. 2021. Figueroa Park Project Cultural Resources Assessment. Document prepared by AECOM for Los Angeles Department of Water and Power.

***Attachments:** ☐NONE ■Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

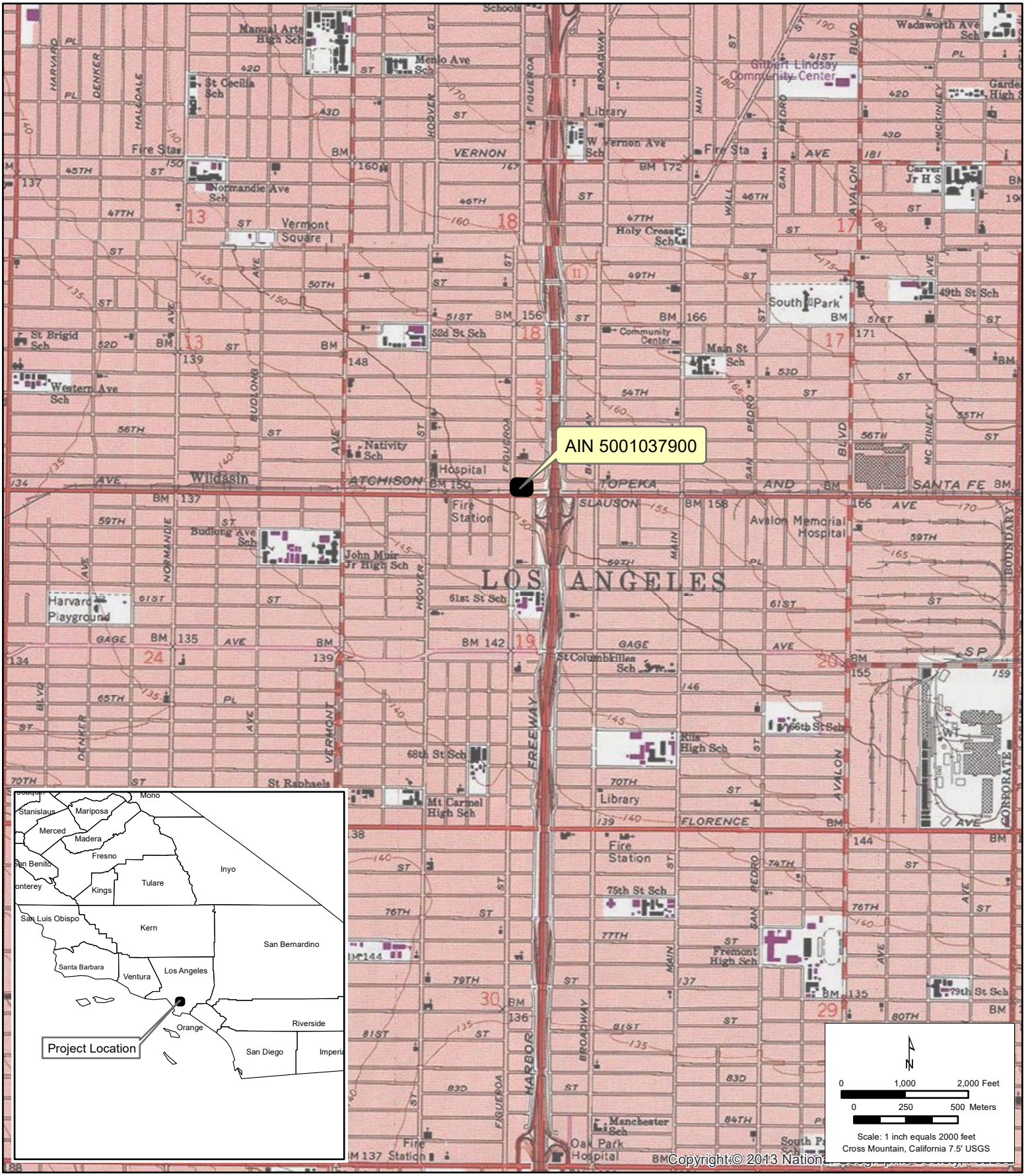
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

Page 2 of 2 *Resource Name or # (Assigned by recorder) AIN 5001037900

*Map Name: Inglewood, Ca *Scale: 1:24,000 *Date of Map: 1981



APPENDIX D
Energy Resources Assessment

Technical Memorandum

TO: Fareeha Kibriya, AICP, LEED AP
AECOM

FROM: Terry A. Hayes Associates Inc.

DATE: June 9, 2021

RE: Figueroa Property Remediation and Park Project – Energy Assessment

Introduction

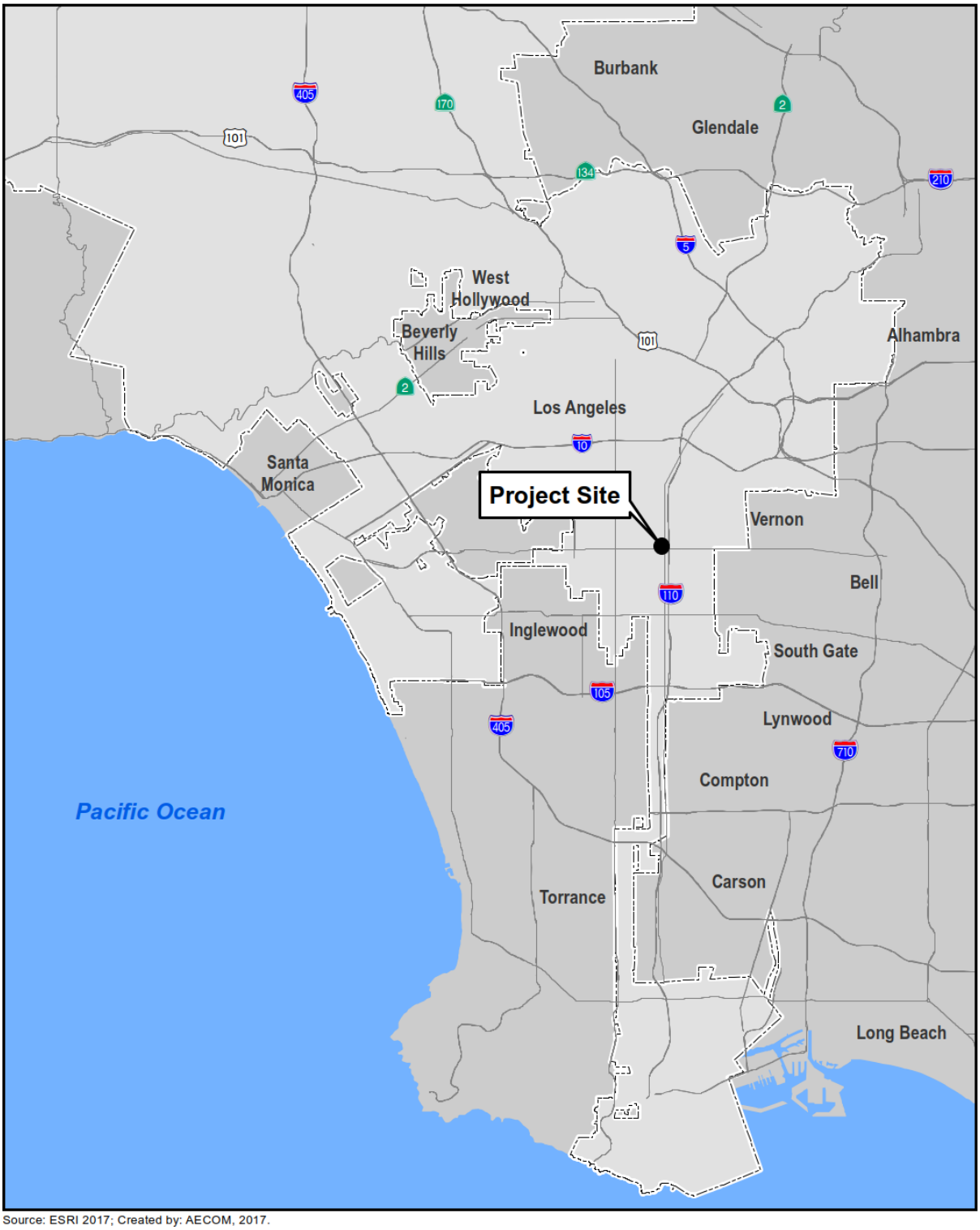
Terry A. Hayes Associates Inc. (TAHA) completed an Energy Assessment for the Figueroa Property Remediation and Park Project (proposed project) in accordance with the provisions of the California Environmental Quality Act (CEQA) Statutes and Guidelines. This Assessment is organized as follows:

- Introduction
- Project Description
- Energy Topical Information
- Regulatory Framework
- Existing Setting
- Significance Thresholds
- Methodology
- Impact Assessment
- References

Project Description

The Los Angeles Department of Water and Power (LADWP) proposes to enter into a long-term lease agreement with the Los Angeles Department of Recreation and Parks (LARAP) for an approximately 0.5-acre vacant LADWP-owned property (the Figueroa property), which would then be developed as a neighborhood park by an independent non-profit community organization under agreement with LARAP. The park would then become a facility operated and maintained by LARAP.

The approximately 20,000 square-foot Figueroa property is located in Los Angeles at 5800 South Figueroa Street, on the southeast corner of Figueroa Street and West 58th Street. It is immediately bounded on the south by a railroad right-of-way, which is adjacent to Slauson Avenue. A filling station is located on the south side of Slauson Avenue. On the west, the property is bounded by Figueroa Street with medical offices and a vacant lot located on the west side of Figueroa Street. On the north, the property is bounded by West 58th Street with the LADWP electrical Distributing Station Number 4 located on the north side of West 58th Street. To the east, the property abuts a single-family residential property. The vicinity around the property is an urban area consisting primarily of single-family residences and commercial uses with some multi-family housing. The Harbor Freeway (Interstate 110) is located approximately 250 feet east of the property. **Figure 1** depicts the regional location and **Figure 2** depicts the vicinity of the Figueroa property.



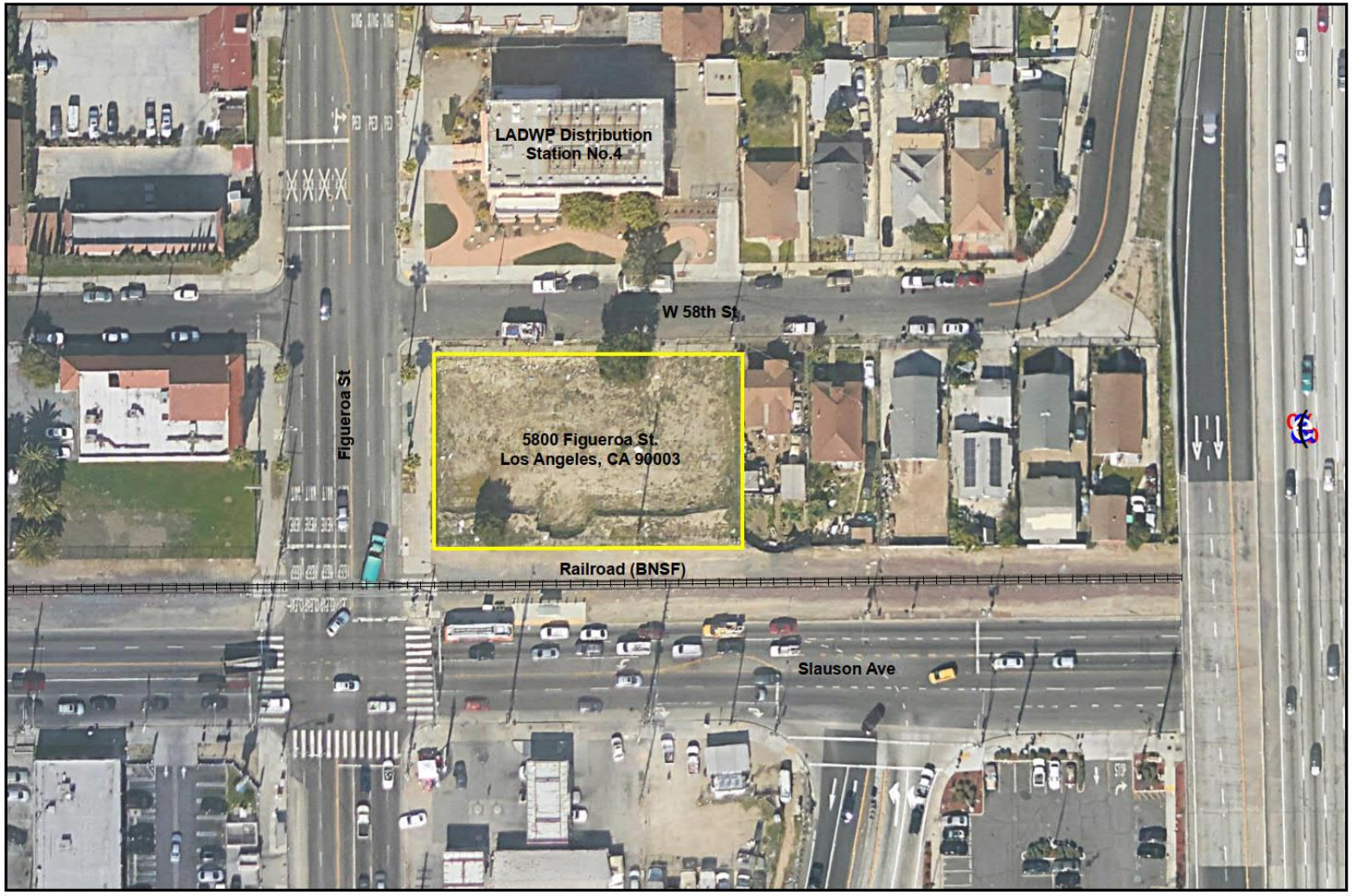
Source: ESRI 2017; Created by: AECOM, 2017.

0 3 6 Miles

City of Los Angeles Boundary

Figure 1

Regional Location Map



Source:Google Earth Image 2021

0 40 80 Feet

Figueroa Property

Figure 2

Figueroa Property

To prepare the property for park development, LADWP would complete the cleanup of the remaining contaminated soil to achieve the standards for California Department of Toxic Substances Control (DTSC) Human Health Risk Assessment (HERO) Note 3 residential screening levels (June 2020). For contaminants where a DTSC screening level has not been established, the cleanup would achieve United States Environmental Protection Agency (USEPA) regional screening levels for residential soil. The remediation of the property would involve the use of an excavator to remove contaminated soil and a loader to load the soil onto dump trucks, which would haul the soil to a landfill approved to accept such material. The volume of the exported material that would need to be trucked off site is estimated at 3,380 loose cubic yards and would require approximately 188 truck trips to haul the soil. The soil would be hauled to a Class I landfill, which is a landfill approved by the State of California to accept, treat as necessary, and store contaminated soil. The closest Class 1 landfill to the Figueroa property is Clean Harbors Buttonwillow, which is located approximately 144 miles north of the property and has the capacity to accept the volume of contaminated soil to be removed. Based on past cleanup efforts, it is estimated that approximately 20 truckloads a day could be removed from the property and transported to Clean Harbors Buttonwillow. It would take approximately 10 workdays to remove the contaminated soil from the property. However, due to unforeseen delays, the actual number of workdays required may be greater.

The project site would be backfilled with approximately 5,850 loose cubic yards of clean imported soil, which would require approximately 325 truck trips to deliver the import soil to the property. Once the soil is dumped at the site, it would be spread by a loader and/or small bulldozer. The soil would be compacted using a vibratory compactor in excavated pits within the footprints of the former pump station building, water reservoir, or fuel storage tank. A roller compactor, small bulldozer, and/or loader across the wider site. It is assumed that approximately two truckloads could be dumped and spread across the property every hour, which would generate an average of approximately 16 truck trips per day. It is anticipated that the backfill material would be available within 25 miles of the project site. At 16 truckloads per day, it would take approximately 20 workdays backfill the property. However, due to unforeseen delays, the actual number of workdays required may be greater. It is therefore anticipated that the entire site preparation effort (both the removal of contaminated soil and the importation and placement of clean soil) would take approximately two months. It is anticipated to begin in mid-winter 2022. Approximately ten on-site personnel would be required throughout construction activities.

Although actual design of the park is yet to be accomplished, it is anticipated that it would include pathways, seating elements, shade structures, exercise stations, and children's play equipment. The park would be entirely enclosed by a perimeter fence, allowing it to be physically secured during non-operating hours (between sunset and sunrise). Although the park would not be open at night, security lighting would be provided. Landscaping would emphasize the use of drought-tolerant plant species, with concentrated areas of lawn and shade trees. The park may include an underground cistern to capture stormwater runoff, which would be properly treated to be recycled for irrigation purposes. The park is anticipated to serve the immediate surrounding community and would, therefore, not include any vehicle parking.

The precise schedule for park construction has not been determined, but for environmental impact analysis purposes, it has been assumed it would begin in early to mid-spring 2022, right after completion of the site preparation task. This schedule represents a conservative assumption related to the assessment of air quality impacts because air pollutant emissions models presume reduced emissions factors for on-road vehicles and off-road equipment as time passes and control technologies improve.

The construction of the park would involve the use of minimal construction equipment, which would include a skid-steer loader(s) and forklift(s) for fine grading and unloading and placing of heavier elements. No more than one to two truck trips in a given day would be required to deliver materials, including concrete. Fewer

than ten on-site construction personnel would be required. It is anticipated that construction of the park would take approximately six months to complete.

Post-construction, the park would be open every day throughout the year from sunrise to sunset but would be secured by locked gates at night. Since no parking would be provided, most visitors are anticipated to access the site from the surrounding neighborhood by foot.

Energy Topical Information

The analysis of direct and indirect energy resource consumption associated with implementation of the proposed project considers potential petroleum-based transportation fuels consumption, electricity use, and natural gas use during construction and future operations.

Transportation Fuels

The spark-ignited internal combustion engines of on-road motor vehicles and off-road equipment use fossil fuel petroleum energy for propulsion. Motor gasoline and diesel fuel are formulations of fossil fuels refined for use in various applications. Gasoline is the primary fuel source for most passenger automobiles, and diesel fuel is the primary fuel source for most off-road equipment and medium and heavy-duty trucks. As of 2015, approximately 15.1 billion gallons of gasoline and 4.2 gallons of diesel, including off-road diesel were sold and consumed throughout California. Approximately 97 percent of all gasoline consumed in California is utilized by light-duty cars, pickup trucks, and sport utility vehicles. Nearly all heavy-duty trucks, delivery vehicles, buses, trains, ships, boats and barges, farm, construction, and heavy-duty military vehicles have diesel engines.[1] More transportation fuels are consumed in Los Angeles County than any other county in California. The California Energy Commission estimates that approximately 3.56 billion gallons of gasoline and 276 million gallons of diesel fuel were purchased and consumed by Los Angeles County customers in 2019.[2]

Electricity Supply

Electricity is a form of energy produced through various means of expending natural resources (i.e., coal-fire power plants, solar energy facilities, hydroelectric dams, and geothermal plants) and is used to power buildings, lighting, appliances, and myriad other end uses. Electricity in the project area is provided by the Los Angeles Department of Water and Power (LADWP). LADWP's power system supplies more than 22.5 million megawatt-hours (MWh) of electricity a year for the City of Los Angeles' 1.5 million residential and business customers as well as about 6,000 customers in Owens Valley. Typical residential energy use per customer is approximately 500 kilowatt-hours (kWh) per month. Business and industry consume approximately 70 percent of the electricity in Los Angeles. LADWP has a generation capacity of approximately 8,000 MW from a mix of energy sources. Approximately 34 percent of electricity is generated from renewable energy, 34 percent from natural gas, 9 percent from nuclear, 3 percent from hydroelectric, 19 percent from coal, and 6 percent from purchased power.[3]

Natural Gas

Natural gas is provided and distributed to residents and businesses in the City of Los Angeles by the Southern California Gas Company (SoCalGas). According to the 2018 California Gas Report, SoCalGas is expected to provide an average of 2,519,000,000 thousand British Thermal Unit (BTU) per day by 2022. SoCalGas projects total gas demand to decline at an annual rate of 0.74 percent from 2018 to 2035. The decline in throughput

[1]California Energy Commission, *Energy Almanac*, https://www.energy.ca.gov/data-reports/energy-almanac, accessed May 20, 2021.
[2]California Energy Commission, *2010-2019 CEC-A15 Results and Analysis*, 2020.
[3]Los Angeles Department of Water and Power, *2019-20 Briefing Book*, 2020.

demand is due to modest economic growth, California Public Utilities Commission mandates energy efficiency standards and programs, tighter standards created by revised Title 24 Codes and Standards, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure.[4]

Regulatory Framework

The following provides a brief summary of regulations and policies pertaining to energy resources. This is a not an exhaustive list of all regulations and policies.

Federal

On August 8, 2005, President George W. Bush signed the Energy Policy Act of 2005 into law. This comprehensive energy legislation contains several electricity related provisions that aim to:

- Help ensure that consumers receive electricity over a dependable, modern infrastructure;
- Remove outdated obstacles to investment in electricity transmission lines;
- Make electric reliability standards mandatory instead of optional; and
- Give federal officials the authority to site new power lines in Department of Energy designated national corridors in certain circumstances.

State

CEQA Guidelines Appendix F provides a goal of conserving energy in the state of California. The appendix indicates the following methods to achieve this goal: (1) decreasing overall per capita energy consumption, (2) decreasing reliance on natural gas and oil, and (3) increasing reliance on renewable energy sources.

The California Renewables Portfolio Standard (RPS) Program, which was established in 2002 under Senate Bill (SB) 1078, accelerated in 2006 under SB 107, expanded in 2011 under SB 2 and further expanded in 2015 under SB 350, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS Program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020. On September 12, 2002, then-Governor Gray Davis signed SB 1078. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, then-Governor Arnold Schwarzenegger signed Executive Order S-14-08, which expands the RPS to 33 percent renewable power by 2020. In September 2009, Governor Schwarzenegger continued California's commitment to the RPS by signing Executive Order S-21-09, which directs the California Air Resources Board (CARB) under its Assembly Bill (AB) 32 authority to enact regulations to help the state meet its RPS goal of 33 percent renewable energy by 2020. The 33 percent by 2020 goal was codified in April 2011 with SB X1-2, which was signed by Governor Edmund G. Brown, Jr. This RPS preempts the CARB 33 percent Renewable Electricity Standard and applies to all electricity retailers in the state, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. These entities must adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013 and 25 percent by the end of 2016, with the 33 percent requirement being met by the end of 2020.

[4]California Gas and Electric Utilities, *2018 California Gas Report*, 2018.

The Clean Energy and Pollution Reduction Act of 2015, SB 350 (Chapter 547, Statutes of 2015) was approved by Governor Edmund G. Brown, Jr. on October 7, 2015. SB 350 does the following: (1) increases the standards of the RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030; (2) requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030; (3) provides for the evolution of the Independent System Operator into a regional organization; and (4) requires the state to reimburse local agencies and school districts for certain costs mandated by the state through procedures established by statutory provisions. Among other objectives, the legislature intends to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation (SB 350, Clean Energy and Pollution Reduction Act 2015).

Title 24 of the California Code of Regulations comprises the State Building Standards Code. Part 6 of Title 24 is the California Energy Code that includes the building energy efficiency standards. The standards include provisions applicable to all buildings, residential and non-residential, and describe the requirements for documentation to certify that building designs meets the standards.

Executive Order S-06-06 establishes targets for the use and production of bio-fuels and bio-power and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The executive order establishes the following target to increase the production and use of bio-energy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its bio-fuels within California by 2010, 40 percent by 2020, and 75 percent by 2050.

On April 29, 2015, Governor Edmund G. Brown Jr. signed Executive Order B-30-15, establishing a new statewide goal to reduce greenhouse gas (GHG) emissions 40 percent below 1990 levels by 2030. SB 1389 requires the California Energy Commission to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety.

Local

On May 15, 2007, Los Angeles Mayor Antonio Villaraigosa released the "GREEN LA – An Action Plan to Lead the Nation in Fighting Global Warming" (GREEN LA Plan) that has an overall goal of reducing the City of Los Angeles' GHG emissions by 35 percent below 1990 levels by 2030. This goal exceeds the targets set by both California and the Kyoto Protocol, and is the greatest reduction target of any large United States city. The cornerstone of the GREEN LA Plan is increasing the City's use of renewable energy to 35 percent by 2020.

On April 8, 2015, Mayor Eric Garcetti released the Sustainable City pLAn (pLAn), a roadmap to achieve back to basics short-term results while setting the path to strengthen and transform the City. The pLAn is made up of short-term (by 2017) and longer-term (by 2025 and 2035) targets in 14 categories to advance the City's environment, economy and equity. The pLAn provides strategies to create a more sustainable and livable city by: improving land use planning to promote neighborhood quality of life; conserving energy and water; mitigating and adapting to climate change; building transit options for an accessible future; promoting affordability and environmental justice; and restoring and reinventing the Los Angeles River.

In April 2019, Mayor Eric Garcetti released L.A.'s Green New Deal (Sustainable City pLAn 2019). Rather than an adopted plan, the Green New Deal is a mayoral initiative that consists of a program of actions designed to create sustainability-based performance targets through 2050 that advance economic, environmental, and

equity objectives. L.A.'s Green New Deal is the first four-year update to the City's first Sustainable City pLAn that was released in 2015. It augments, expands, and elaborates in even more detail Los Angeles' vision for a sustainable future and it addresses climate change with accelerated targets and new aggressive goals. L.A.'s Green New Deal contains an extensive list of commitments to enhance energy efficiency through various initiatives throughout the City:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per sf for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 million BTU/square feet in 2015).
- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce vehicle miles traveled (VMT) per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 pounds of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.
- Ensure proportion of Angelenos living within 0.5 miles of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

The 2017 LADWP Power Strategic Long-Term Resource Plan (SLTRP) is a 20-year roadmap that guides the LADWP power system in its efforts to supply reliable electricity in an environmentally responsible and cost-effective manner. One of the main focuses of the SLTRP is to reduce greenhouse gas emissions, while maintaining cost competitive rates and reliable electric service. The SLTRP examines multiple strategies to reduce GHG emissions, including early coal replacement, accelerated renewable portfolio standard, energy efficiency, local solar, energy storage, and transportation electrification. As LADWP starts the process to investigate, study, and determine the investments needed for a 100 percent clean energy portfolio, the 2017 SLTRP provides a path towards this goal with a combination of GHG reduction strategies, including early coal replacement two years ahead of schedule by 2025, accelerating renewable portfolio standard to 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036, doubling of energy efficiency from 2017 through 2027, repowering coastal in-basin generating units with new, highly efficient potential clean energy projects by 2029 to provide grid reliability and critical ramping capability, accelerating electric transportation

to absorb GHG emissions from the transportation sector, and investing in the Power System Reliability Program to maintain a robust and reliable Power System.[5]

Existing Setting

California contains abundant sources of nonrenewable and renewable energy. Nonrenewable resources include large crude oil and natural gas deposits that are located within six geological basins in the Central Valley and along the coast. Much of these reserves are concentrated in the southern San Joaquin Basin. Regarding renewable resources, the State leads the nation in net electricity generation from solar, geothermal, and biomass. California has considerable solar potential, especially in the southeastern deserts and several of the world's largest solar thermal plants are located in California's Mojave Desert. Although California's wind power potential is widespread, especially along the eastern and southern mountain ranges, much of the State is excluded from development of this resource because it is in wilderness areas, parks, or urban areas. The transportation sector is responsible for the most energy consumption of any sector within the State. More motor vehicles are registered in California than in any other state, and commute times in California rank among some of the longest in the country.

Locally, the project site is vacant. Transportation fuels, electricity, and natural gas are not used at the project site.

Significance Thresholds

This Assessment was undertaken to determine whether construction or operation of the proposed project would have the potential to result in significant environmental impacts related to Energy in the context of the Appendix G Environmental Checklist criteria of the CEQA Statute and Guidelines. Implementation of the proposed project may result in a significant environmental impact related to Energy Resources if the proposed project would:

a) Result in potentially significant environment impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; and/or

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Methodology

Appendix F of the CEQA Guidelines states that the goal of conserving energy implies the wise and efficient use of energy, to be achieved by decreasing overall per capita energy consumption; decreasing reliance on natural gas and oil; and increasing reliance on renewable energy resources. To assure energy implications are considered in project decisions, CEQA requires that environmental impact reports include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy. Energy resource assessments should consider both direct and indirect expenditures of energy during construction and operation of projects. Other than the use of site security lighting during operations, which would consume a negligible amount for electricity, implementation of the proposed project would not introduce any new temporary or permanent uses or facilities that would require electricity or natural gas; therefore, these resources did not require any quantitative assessment.

Construction of the proposed project would employ off-road equipment and on-road vehicles powered by petroleum-based transportation fuels. The air quality analysis prepared for the proposed project, included in the appendix for the environmental documentation, includes an inventory of the construction equipment activity and

[5]Los Angeles Department of Water and Power, *2017 Power Strategic Long-Term Resource Plan*, December 2017.

estimates of carbon dioxide (CO_2) emissions that would be generated by vehicle trips that were prepared using the California Emissions Estimator Model (CalEEMod, version 2016.3.2). Fuel consumption factors from the CARB off-road equipment model in terms of gallons per horsepower-hour (gal/hp-hr.) were used to estimate diesel fuel consumption in off-road equipment during proposed project construction.

On-road vehicle fuel consumption was estimated using the CalEEMod output for daily CO_2 emissions in pounds per day (lbs/day) from worker trips (motor gasoline) and vendor and haul truck trips (diesel fuel) and carbon content factors from the United States Environmental Protection Agency (USEPA) *Emission Factors for Greenhouse Gas Inventories* document.[6] The USEPA estimates the carbon intensity of motor gasoline and diesel fuel to be 19.36 lbs CO_2/gallon-gas and 22.51 lbs CO_2/gallon-diesel, respectively. Daily motor gasoline and diesel fuel consumption during each phase of construction were estimated by multiplying the daily CO_2 emissions from each vehicle type by the corresponding carbon intensity factor, then multiplying by the total number of workdays that would occur under each phase. Detailed emissions modeling files can be found in the Appendix, along with transportation fuels consumption calculations.

Impact Assessment

a) Would the proposed project result in potentially significant environment impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? (No Impact)

The following analysis discusses short-term (construction) and long-term (operational) use of electricity, natural gas, and petroleum.

Electricity

Construction. Construction of the proposed project would require electricity for operation of electrically powered hands tools. However, electricity to the site would be provided by diesel generators. Any electricity would be generated by on-site use of petroleum products. Therefore, construction of the proposed project would result in no impact related to wasteful, inefficient, or unnecessary consumption of electricity

Operation. The proposed park would open at sunrise and close at sunset, which eliminates the need for substantial lighting. However, as discussed above, minimal site lighting for nighttime security would be used. Landscape irrigation systems would likewise require minor amounts of electricity to operate. Operation of the proposed project would not interfere with the existing electricity service infrastructure, nor would it impede LADWP efforts to expand its renewable resources. Therefore, implementation of the proposed project would result in no impact related to operational electricity consumption.

Natural Gas

Construction. Construction activities typically do not require the consumption of natural gas to power equipment or heavy machinery. Natural gas that would be consumed during construction would be negligible and would not result in a significant drain on natural gas resources. Therefore, construction of the proposed project would result in no impact related to wasteful, inefficient, or unnecessary consumption of natural gas.

Operation. Future operation of the proposed project would not use natural gas. Therefore, operation of the proposed project would result in no impact related to wasteful, inefficient, or unnecessary consumption of natural gas.

[6]USEPA, *Emission Factors for Greenhouse Gas Inventories*, March 2020.

Petroleum

Construction. Petroleum fuels would be consumed during the site preparation and park construction phases of the proposed project by heavy-duty equipment, which is usually diesel powered, as well as on-road vehicles used by the construction crews, vendor deliveries, and haul trucks. **Table 1** shows that a one-time expenditure of approximately 20,056 gallons of diesel fuel and 1,793 gallons of gasoline would be needed to construct the proposed project.

TABLE 1: CONSTRUCTION PETROLEUM DEMAND

Source	Gallons
DIESEL	
Off-Road Equipment	6,351
Vendor Delivery Trips	13,035
Disposal Hauling Trips	670
Total Diesel Consumption	**20,056**
GASOLINE	
Construction Crew Trips	1,793
Total Gasoline Consumption	**1,793**

SOURCE: CARB, 2018; USEPA, 2020; TAHA, 2021.

The proposed project would use best practices to eliminate the potential for the wasteful consumption of petroleum. Exported materials (e.g., demolition debris and soil hauling) would be disposed of at the closest facility that accepts such materials, and the proposed project would be required to comply with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to five minutes. Therefore, because petroleum use would be minimized to the extent feasible and represents a relatively small amount of fuel consumption, construction of the proposed project would result in no impact related to wasteful, inefficient, or unnecessary consumption of petroleum.

Operation. The proposed project would primarily serve the immediate surrounding community and does not include vehicle parking. The neighborhood park may reduce fuel consumption by providing a walkable option for outdoor activities as opposed to local residents needing to drive to visit a park. Negligible amounts of energy would occasionally be used for site and landscape maintenance activities. Therefore, operation of the proposed project would result in no impact related to wasteful, inefficient, or unnecessary consumption of petroleum products.as

b) Would the proposed project conflict with or obstruct a State or local plan for renewable energy or energy efficiency? (No Impact)

There is no potential for the park project to conflict with renewable energy or energy efficiency plans. The proposed project would use a significant amount of transportation fuel, electricity, or natural gas. Construction activities would use best practices to eliminate the potential for the wasteful consumption of energy (e.g., compliance with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to five minutes). Therefore, the proposed project would result in no impact related to energy plans and energy efficiency.

References

42 United States Code, *Section 13201 et seq. Energy Policy Act*, 2005.

California Air Resources Board, *2017 Off-road Diesel Emission Factors*, 2017.

California Code of Regulations, *Title 24 Building Energy Efficiency Standards*, 2019.

California Energy Commission, *2010-2019 CEC-A15 Results and Analysis*, 2020.

California Energy Commission, *Energy Almanac,* available at https://www.energy.ca.gov/data-reports/energy-almanac, accessed May 20, 2021.

California Gas and Electric Utilities, *2018 California Gas Report*, 2018.

California Public Utilities Commission, *2018 California Renewables Portfolio Standard Annual Report*, November 2018.

City of Los Angeles, *L.A.'s Green New Deal (Sustainable City pLAn 2019)*, December 2019.

Los Angeles Department of Water and Power, *2017 Power Strategic Long-Term Resource Plan*, December 31, 2017.

Los Angeles Department of Water and Power, *Briefing Book 2019-20*, March 2020.

The Climate Registry, General Reporting *Protocol*, 2019.

U.S. Energy Information Administration, *California Natural Gas Consumption by End Use*, December 31, 2019.

U.S. Energy Information Administration, *California State Electricity Profile 2018*, December 2019.

U.S. Energy Information Administration, *California State Energy Profile*, November 15, 2018.

United States Environmental Protection Agency, *Emission Factors for Greenhouse Gas Inventories*, March 2020.

APPENDIX E
Greenhouse Gas Emissions Assessment

Technical Memorandum

TO:	Fareeha Kibriya, AICP, LEED AP AECOM
FROM:	Terry A. Hayes Associates Inc
DATE:	June 9, 2021
RE:	**Figueroa Property Remediation and Park Project – Greenhouse Gas (GHG) Emissions Assessment**

Introduction

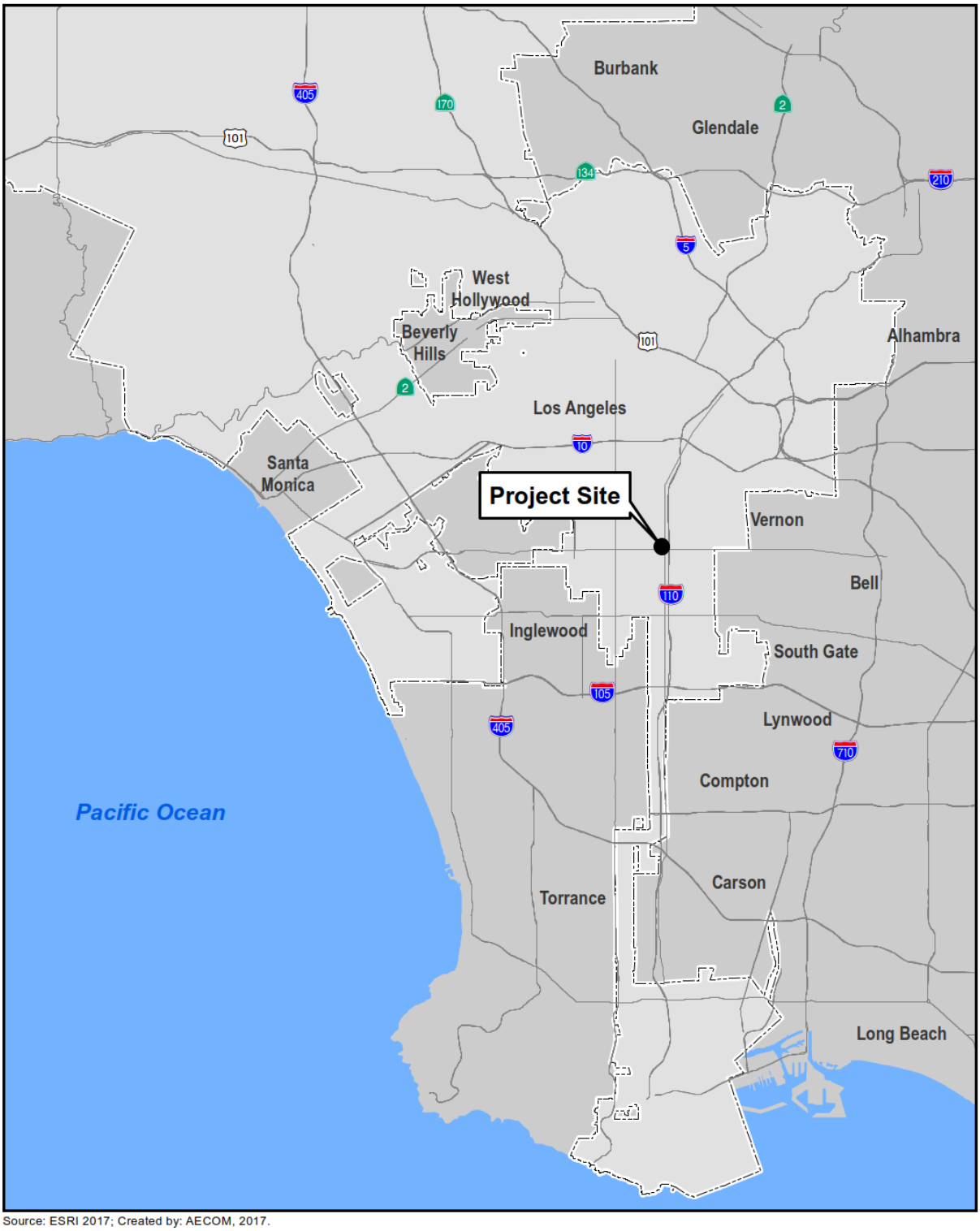
Terry A. Hayes Associates Inc. (TAHA) completed a GHG Emissions Assessment for the Figueroa Property Remediation and Park Project (proposed project) in accordance with the provisions of the California Environmental Quality Act (CEQA) Statutes and Guidelines. This Assessment is organized as follows:

- Introduction
- Project Description
- GHG Topical Information
- Regulatory Framework
- Existing Setting
- Significance Thresholds
- Methodology
- Impact Assessment
- References

Project Description

The Los Angeles Department of Water and Power (LADWP) proposes to enter into a long-term lease agreement with the Los Angeles Department of Recreation and Parks (LARAP) for an approximately 0.5-acre vacant LADWP-owned property (the Figueroa property), which would then be developed as a neighborhood park by an independent non-profit community organization under agreement with LARAP. The park would then become a facility operated and maintained by LARAP.

The approximately 20,000 square-foot Figueroa property is located in Los Angeles at 5800 South Figueroa Street, on the southeast corner of Figueroa Street and West 58th Street. It is immediately bounded on the south by a railroad right-of-way, which is adjacent to Slauson Avenue. A filling station is located on the south side of Slauson Avenue. On the west, the property is bounded by Figueroa Street with medical offices and a vacant lot located on the west side of Figueroa Street. On the north, the property is bounded by West 58th Street with the LADWP electrical Distributing Station Number 4 located on the north side of West 58th Street. To the east, the property abuts a single-family residential property. The vicinity around the property is an urban area consisting primarily of single-family residences and commercial uses with some multi-family housing. The Harbor Freeway (Interstate 110) is located approximately 250 feet east of the property. **Figure 1** depicts the regional location and **Figure 2** depicts the vicinity of the Figueroa property.



Source: ESRI 2017; Created by: AECOM, 2017.

0 3 6 Miles

City of Los Angeles Boundary

Figure 1

Regional Location Map

Source:Google Earth Image 2021

0 40 80 Feet

Figueroa Property

Figure 2

Figueroa Property

To prepare the property for park development, LADWP would complete the cleanup of the remaining contaminated soil to achieve the standards for California Department of Toxic Substances Control (DTSC) Human Health Risk Assessment (HERO) Note 3 residential screening levels (June 2020). For contaminants where a DTSC screening level has not been established, the cleanup would achieve United States Environmental Protection Agency (USEPA) regional screening levels for residential soil. The remediation of the property would involve the use of an excavator to remove contaminated soil and a loader to load the soil onto dump trucks, which would haul the soil to a landfill approved to accept such material. The volume of the exported material that would need to be trucked off site is estimated at 3,380 loose cubic yards and would require approximately 188 truck trips to haul the soil. The soil would be hauled to a Class I landfill, which is a landfill approved by the State of California to accept, treat as necessary, and store contaminated soil. The closest Class I landfill to the Figueroa property is Clean Harbors Buttonwillow, which is located approximately 144 miles north of the property and has the capacity to accept the volume of contaminated soil to be removed. Based on past cleanup efforts, it is estimated that approximately 20 truckloads a day could be removed from the property and transported to Clean Harbors Buttonwillow. It would take approximately 10 workdays to remove the contaminated soil from the property. However, due to unforeseen delays, the actual number of workdays required may be greater.

The project site would be backfilled with approximately 5,850 loose cubic yards of clean imported soil, which would require approximately 325 truck trips to deliver the import soil to the property. Once the soil is dumped at the site, it would be spread by a loader and/or small bulldozer. The soil would be compacted using a vibratory compactor in excavated pits within the footprints of the former pump station building, water reservoir, or fuel storage tank. A roller compactor, small bulldozer, and/or loader across the wider site. It is assumed that approximately two truckloads could be dumped and spread across the property every hour, which would generate an average of approximately 16 truck trips per day. It is anticipated that the backfill material would be available within 25 miles of the project site. At 16 truckloads per day, it would take approximately 20 workdays backfill the property. However, due to unforeseen delays, the actual number of workdays required may be greater. It is therefore anticipated that the entire site preparation effort (both the removal of contaminated soil and the importation and placement of clean soil) would take approximately two months. It is anticipated to begin in mid-winter 2022. Approximately ten on-site personnel would be required throughout construction activities.

Although actual design of the park is yet to be accomplished, it is anticipated that it would include pathways, seating elements, shade structures, exercise stations, and children's play equipment. The park would be entirely enclosed by a perimeter fence, allowing it to be physically secured during non-operating hours (between sunset and sunrise). Although the park would not be open at night, security lighting would be provided. Landscaping would emphasize the use of drought-tolerant plant species, with concentrated areas of lawn and shade trees. The park may include an underground cistern to capture stormwater runoff, which would be properly treated to be recycled for irrigation purposes. The park is anticipated to serve the immediate surrounding community and would, therefore, not include any vehicle parking.

The precise schedule for park construction has not been determined, but for environmental impact analysis purposes, it has been assumed it would begin in early to mid-spring 2022, right after completion of the site preparation task. This schedule represents a conservative assumption related to the assessment of air quality impacts because air pollutant emissions models presume reduced emissions factors for on-road vehicles and off-road equipment as time passes and control technologies improve.

The construction of the park would involve the use of minimal construction equipment, which would include a skid-steer loader(s) and forklift(s) for fine grading and unloading and placing of heavier elements. No more than one to two truck trips in a given day would be required to deliver materials, including concrete. Fewer

than ten on-site construction personnel would be required. It is anticipated that construction of the park would take approximately six months to complete.

Post-construction, the park would be open every day throughout the year from sunrise to sunset but would be secured by locked gates at night. Since no parking would be provided, most visitors are anticipated to access the site from the surrounding neighborhood by foot.

GHG Topical Information

GHG emissions refer to a group of emissions that are generally believed to affect global climate conditions. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), keep the average surface temperature of the Earth close to 60-degree Fahrenheit (°F). Without the natural greenhouse effect, the Earth's surface would be about 61°F cooler.[1]

In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), black carbon (black carbon is the most strongly light-absorbing component of particulate matter emitted from burning fuels such as coal, diesel, and biomass), and water vapor. CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO_2, denoted as CO_2e. CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. **Table 1** shows various GWP.

TABLE 1: GLOBAL WARMING POTENTIAL FOR VARIOUS GREENHOUSE GASES

Pollutant	Lifetime (Years)	Global Warming Potential (20-Year)	Global Warming Potential (100-Year)
Carbon Dioxide (CO_2)	--	1	1
Methane (CH_4)	12	21	25
Nitrous Oxide (N_2O)	114	310	298
Nitrogen Trifluoride	740	Unknown	17,200
Sulfur Hexafluoride (SF_6)	3,200	23,900	22,800
Perfluorocarbons (PFCs)	2,600-50,000	6,500-9,200	7,390-12,200
Hydrofluorocarbons (HFCs)	1-270	140-11,700	124-14,800

SOURCE: CARB, *First Update to the Climate Change Scoping Plan*, 2014.

Regulatory Framework

In response to growing scientific and political concern with global climate change, a series of federal and state laws have been adopted to reduce GHG emissions. The following provides a brief summary of GHG regulations and policies. This is a not an exhaustive list of all regulations and policies.

[1]California Environmental Protection Agency Climate Action Team, *Climate Action Report to Governor Schwarzenegger and the California Legislator*, March 2006.

Federal

***Massachusetts vs. Environmental Protection Agency*, 127 S. Ct. 1438 (2007)**. A Supreme Court ruling that CO_2 and other GHGs are pollutants under the Clean Air Act.

Energy Independence and Security Act. This act set a Renewable Fuel Standard of 36 billion gallons of biofuel usage by 2022, increases Corporate Average Fuel Economy Standards of setting 35 miles per gallon of cars and light trucks by 2020 and sets new standards for lighting and residential and commercial appliance equipment.

National Fuel Efficiency Policy and Fuel Economy Standards. This 2009 policy was designed to increase fuel economy by more than five percent by 2016 starting with model year 2012 cars and trucks.

Heavy-Duty Vehicle Program. This 2011 program established the first fuel efficiency requirements for medium- and heavy-duty vehicles beginning with model year 2014.

State

Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24 of the California Code of Regulations). Title 24 standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings.

California Green Building Code. Also referred to as CalGreen, lays out minimum requirements for newly constructed buildings in California, which will reduce GHG emissions through improved efficiency and process improvements.

Senate Bill 1078 (SB 1078), Senate Bill 107 (SB 107), and Executive Order (E.O.) S-14-08 (Renewables Portfolio Standard). Signed on September 12, 2002, SB 1078 required California to generate 20 percent of its electricity from renewable energy by 2017. SB 107, signed on September 26, 2006 changed the due date for this goal from 2017 to 2010, which was achieved by the state. On November 17, 2008, E.O. S-14-08 established a Renewables Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.

Executive Order (E.O.) S-3-05. E.O. S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32. The California Global Warming Solutions Act of 2006, also known as Assembly Bill 32, focuses on reducing GHG emissions in California and requires the California Air Resources Board (CARB) to adopt rules and regulations that would achieve GHG emissions equivalent to Statewide levels in 1990 by 2020. The 2020 target reductions were estimated to be 174 million metric tons of CO_2e. In November 2017, CARB adopted the final 2017 Scoping Plan: The Strategy for Achieving California's 2030 GHG target (2017 Scoping Plan). The 2017 Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals.

Senate Bill 375 (SB 375). Provides a means for achieving Assembly Bill 32 goals through the reduction in emissions by cars and light trucks. SB 375 requires Regional Transportation Plans (RTPs) prepared by Metropolitan Planning Organizations (MPOs) to include Sustainable Communities Strategies (SCSs).

Senate Bill 743 (SB 743). Encourages land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT), which contribute to GHG emissions, as required by Assembly Bill 32.

Executive Order (E.O) B-30-15. This policy set a goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. The E.O. establishes GHG emissions reduction targets to reduce emissions to 80 percent below 1990 levels by 2050 and sets an interim target of emissions reductions for 2030 as being necessary to guide regulatory policy and investments in California and put California on the most cost-effective path for long-term emissions reductions.

Senate Bill 32 (SB 32). This bill required a commitment to reducing statewide GHG emissions by 2020 to 1990 levels and by 2030 to 40 percent less than 1990 levels.

Regional

Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). SCAG is the MPO for the six-county region that includes Los Angeles, Orange, Riverside, Ventura, San Bernardino and Imperial counties. The RTP/SCS includes commitments to reduce emissions from transportation sources to comply with SB 375. Goals and policies included in the RTP/SCS to reduce air pollution consist of adding density in proximity to transit stations, mixed-use development and encouraging active transportation (i.e., non-motorized transportation such as bicycling).

Local

L.A.'s Green New Deal (Sustainable City pLAn 2019). In April 2019, Mayor Eric Garcetti released L.A.'s Green New Deal (Sustainable City pLAn 2019). Rather than an adopted plan, the Green New Deal is a mayoral initiative that consists of a program of actions designed to create sustainability-based performance targets through 2050 that advance economic, environmental, and equity objectives. L.A.'s Green New Deal (Sustainable City pLAn 2019) is the first four-year update to the City's first Sustainable City pLAn that was released in 2015. It augments, expands, and elaborates in even more detail L.A.'s vision for a sustainable future and it addresses climate change with accelerated targets and new aggressive goals. While not a plan adopted solely to reduce GHG emissions, climate mitigation is one of eight explicit benefits within L.A.'s Green New Deal that help define its strategies and goals.

GreenLA Climate Action Plan. The City of Los Angeles has issued guidance promoting sustainable development to reduce GHG emissions citywide in the form of a Climate Action Plan. The objective of GreenLA is to reduce GHG emissions 35 percent below 1990 levels by 2030.

ClimateLA. In order to provide detailed information on action items discussed in GreenLA, the City published an implementation document titled ClimateLA. ClimateLA presents the existing GHG inventory for the City, describes enforceable GHG reduction requirements, provides mechanisms to monitor and evaluate progress, and includes mechanisms that allow the plan to be revised in order to meet targets. By 2030, the plan aims to reduce GHG emissions by 35 percent from 1990 levels which were estimated to be approximately 54.1 million metric tons.

Green Building Program. The purpose of the City's Green Building Program is to reduce the use of natural resources, create healthier living environments and minimize the negative impacts of development on local, regional, and global ecosystems. The program consists of a Standard of Sustainability and Standard of Sustainable Excellence.

Los Angeles Green Building Code. The Green Building Code is applicable to new buildings and alterations with building valuations over $200,000 (residential and non-residential). The Green Building Code is based on CalGreen and was developed to reduce energy use, water use, and waste.

Existing Buildings Energy and Water Efficiency Ordinance. This ordinance is designed to facilitate the comparison of buildings' energy and water consumption, and reduce building operating costs, leading to reduced GHG emissions.

Existing Setting

Emissions of GHGs to the atmosphere are the result of both natural and human-influenced activities. Volcanic activity, forest fires, decomposition, industrial processes, landfills, consumption of fossil fuels for power generation, transportation, heating, and cooling are the primary sources of GHG emissions. Without human activity, the Earth would maintain an approximate, but varied, balance between the emission of GHGs into the atmosphere and the storage of GHG in oceans and terrestrial ecosystems. Increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.) has contributed to a rapid increase in atmospheric levels of GHGs over the last 150 years.

Table 2 shows statewide GHG emissions from 2008–2018 that are tracked by the CARB. The transportation sector represents California's largest source of GHG emissions and contributed 39 percent of total annual emissions. Since 2013, emissions from the transportation sector have increased; however, the long-term direction of transportation related GHG emissions is declining, with an 11 percent drop over the past decade.

TABLE 2: CALIFORNIA GREENHOUSE GAS EMISSIONS INVENTORY

	Annual CO_2e Emissions (Million Metric Tons)										
Sector	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Transportation	174.8	168.0	165.1	161.8	161.4	161.2	162.6	166.2	169.8	171.0	169.5
Industrial	89.9	87.2	91.0	89.3	88.9	91.6	92.4	90.1	88.9	88.7	89.2
Electric Power	120.1	101.3	90.3	89.2	98.2	91.4	88.9	84.8	68.6	62.1	63.1
Commercial and Residential	44.4	44.5	45.9	46.0	43.5	44.2	38.2	38.8	40.6	41.3	41.4
Agriculture	35.1	32.9	33.7	34.4	35.5	33.8	34.8	33.4	33.2	32.3	32.6
High GWP Emissions	11.7	12.3	13.5	14.5	15.5	16.8	17.7	18.6	19.3	20.0	20.5
Recycling and Waste	8.4	8.5	8.7	8.7	8.7	8.7	8.8	8.8	8.9	9.0	9.1
Total	**484.4**	**454.7**	**448.2**	**443.9**	**451.7**	**447.7**	**443.4**	**440.7**	**429.3**	**424.4**	**425.4**

SOURCE: CARB, *California Greenhouse Gas Emission Inventory – 2020 Edition.*

Between October 23, 2015, and February 18, 2016, an exceptional natural gas leak event occurred at the Aliso Canyon natural gas storage facility that resulted in unexpected GHG emissions of considerable magnitude. The exceptional incident released approximately 109,000 metric tons of CH_4, which equated to approximately 1.96 million metric tons of CO_2e ($MMTCO_2e$) of unanticipated emissions in 2015 and an additional 0.52 $MMTCO_2e$ in 2016. According to CARB, these emissions will be mitigated in the future through projects funded by the Southern California Gas Company based on legal settlement and are presented alongside but tracked separately from routine inventory emissions.[2,3]

In 2016, LADWP achieved California's SB 32 target to reduce GHG emissions to 40 percent below 1990 levels by 2030, which was 14 years ahead of the deadline.[4] By the end of 2018, LADWP systemwide emissions were reduced to 49 percent below 1990 levels, and the 2017 Strategic Long Term Resource Plan forecasts that LADWP GHG emissions will be reduced to 79 percent below 1990 levels by 2037, nearly achieving the 2050 SB 32 target.

[2]CARB, *California Greenhouse Gas Inventory for 2000-2015 – Trends of Emissions and Other Indicators*, June 2017.
[3]CARB, *Determination of Total Methane Emissions from the Aliso Canyon Natural Gas Leak Incident,* October 2016.
[4]LADWP, *Briefing Book 2019-20*, March 2020. Available at https://www.ladwpnews.com/2019-20-briefing-book/.

Significance Thresholds

This Assessment was undertaken to determine whether construction or operation of the proposed project would have the potential to result in significant environmental impacts related to GHG emissions in the context of the Appendix G Environmental Checklist criteria of the CEQA Statute and Guidelines. Implementation of the proposed project may result in a significant environmental impact related to GHG emissions if the proposed project would:

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions.

Section 15064.4 of the CEQA Guidelines states that a lead agency should make a good-faith effort to describe, calculate, or estimate the amount of GHG emissions resulting from a project, and that the lead agency should consider the following factors when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and,
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The CEQA Guidelines require lead agencies to adopt GHG thresholds of significance. When adopting these thresholds, the amended Guideline allows lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence, and/or to develop their own significance threshold. Neither the City nor the South Coast Air Quality Management District (SCAQMD) has officially adopted a quantitative threshold value for determining the significance of GHG emissions that will be generated by projects under CEQA. The SCAQMD published the *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* in October 2008.[5] The SCAQMD convened a GHG CEQA Significance Threshold Stakeholder Working Group beginning in April of 2008 to examine alternatives for establishing quantitative GHG thresholds. The Working Group proposed a 10,000 metric tons of carbon dioxide equivalents ($MTCO_2e$) per year threshold for industrial projects and a 1,400 $MTCO_2e$ annual threshold for commercial projects. Based on the available threshold concepts recommended by expert agencies, the assessment herein analyses operational emissions against SCAQMD's draft 1,400 $MTCO_2e$ bright-line threshold level. Per SCAQMD, projects below this bright-line significance criteria have a minimal contribution to cumulative global emissions and are considered to have less-than significant impacts.

Methodology

The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod, version 2016.3.2) as a tool for quantifying GHG emissions that will be generated by constructing and operating development projects under CEQA. CalEEMod contains an interface for entering project information related to land use type, construction schedule, construction equipment and personnel inventories, operational elements, and mitigation measures. The detailed CalEEMod output files disclosing estimated GHG emissions during construction of the proposed project can be found in the Appendix.

[5]SCAQMD, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

Refer to the Project Description for a discussion of construction methods, including truck trips, equipment use, and workers needed for each construction phase. Equipment activity inventories were prepared using the information found in the project description and can be found in the CalEEMod files in the Appendix to this Technical Memorandum. Operational GHG emissions generated by park activities would be negligible and are addressed qualitatively.

Impact Assessment

a) Would the proposed project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? (No Impact)

The proposed project would generate GHG emissions primarily from construction activities. **Table 3** presents the estimated emissions of GHGs that would be released to the atmosphere during the estimated eight-month-long construction period. Emissions modeling estimated that construction of the proposed project would produce approximately 209 $MTCO_2e$, which equates to approximately 7.0 $MTCO_2e$ annually when amortized over a 30-year period. The total annual amortized mass emissions of 7.0 $MTCO_2e$ is bellowed minimis in relation to even the most conservative quantitative draft interim threshold from SCAQMD of 1,400 $MTCO_2e$ per year, which applies to commercial developments. Therefore, implementation of the proposed project will result in no impact related to GHG emissions.

TABLE 3: PROPOSED PROJECT CONSTRUCTION ACTIVITIES GREENHOUSE GAS EMISSIONS

Source	Greenhouse Gas Emissions ($MTCO_2e$)
Equipment	53.1
Disposal Hauling Trucks	133.3
Material Delivery Trucks	6.8
Construction Crew Vehicles	15.8
Total	**209.0**
30-Year Amortized Rate	***7.0***

SOURCE: TAHA, 2021.

Regarding operational activities, the proposed project would primarily serve the immediate surrounding community and does not include vehicle parking. Occasional negligible emissions would be generated by site and landscape maintenance activities. The proposed project would result in no impacts related to operational GHG emissions.

b) Would the proposed project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs? (No Impact)

There is no potential for the park project to conflict with GHG reduction plans. The GHG plan, policies, and regulations were reviewed for relevant GHG reduction strategies. No policies or regulations were identified that are directly relevant to a small neighborhood park. Indirectly, the neighborhood park may reduce GHG emissions by providing a walkable option for outdoor activities as opposed to local residents needing to drive to visit a park. Occasional negligible emissions would be generated by site and landscape activities.

GHG emissions related to the proposed project construction would be well below any level of significance. GHG emissions are regionally cumulative in nature and it is highly unlikely construction of any individual project would generate GHG emissions of sufficient quantity to conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Standard construction procedures would be

undertaken in accordance with SCAQMD and CARB regulations applicable to heavy duty construction equipment and diesel haul trucks. Adhering to requirements pertinent to construction equipment maintenance and inspections and emissions standards, as well as diesel fleet requirements, including idling time restrictions and maintenance, would ensure that construction of the proposed project would not conflict with GHG emissions reductions efforts.

References

California Air Pollution Control Officers Association, *California Emissions Estimator Model (CalEEMod v2016.3.2) User's Guide*, November 2017.

California Air Resources Board, *California Greenhouse Gas Emission Inventory - 2020 Edition*, 2020.

California Air Resources Board, *California Greenhouse Gas Inventory for 2000-2015 – Trends of Emissions and Other Indicators*, June 2017.

California Air Resources Board, *Determination of Total Methane Emissions from the Aliso Canyon Natural Gas Leak Incident*, October 2016.

California Air Resources Board, *First Update to the Climate Change Scooping Plan*, May 2014.

California Environmental Quality Act Guidelines Section 15064.4.

Los Angeles Department of Water and Power, *Briefing Book 2019-20*, March 2020. Available at https://www.ladwpnews.com/2019-20-briefing-book/.

South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008

South Coast Air Quality Management District, *SCAQMD Air Quality Significance Thresholds*, March 2015.

Southern California Association of Governments, *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*, September 2020.

APPENDIX F
Noise and Vibration Assessment

Technical Memorandum

TO: Fareeha Kibriya

AECOM

FROM: Terry A. Hayes Associates Inc.

DATE: June 22, 2021

RE: Figueroa Property Remediation and Park Project – Noise and Vibration Assessment

Introduction

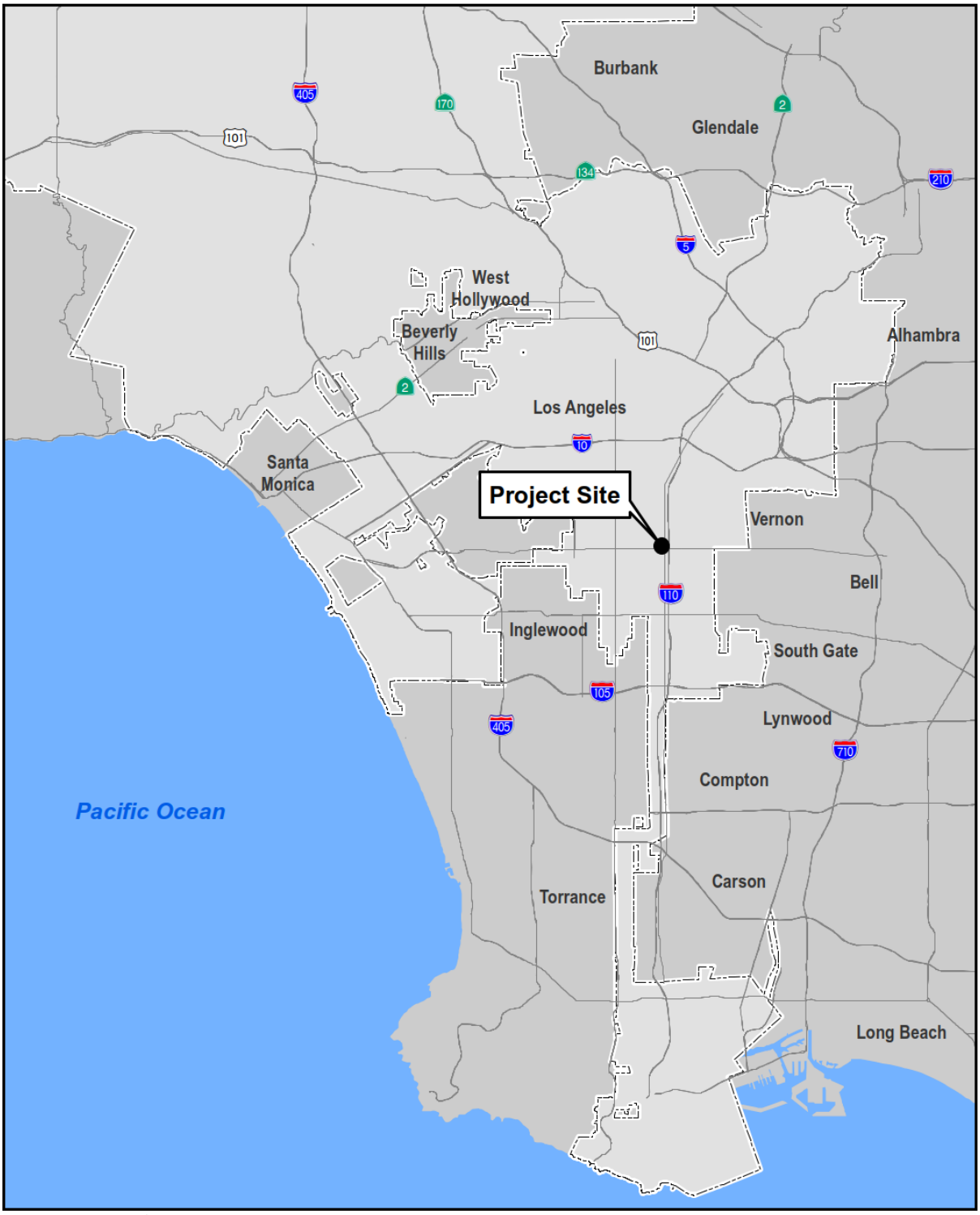
Terry A. Hayes Associates Inc. (TAHA) completed a Noise and Vibration Assessment for the Figueroa Property Remediation and Park Project (proposed project) in accordance with the provisions of the California Environmental Quality Act (CEQA) Statutes and Guidelines. This Assessment is organized as follows:

- Introduction
- Project Description
- Noise and Vibration Topical Information
- Existing Setting
- Regulatory Framework
- Significance Thresholds
- Methodology
- Impact Assessment
- References

Project Description

The Los Angeles Department of Water and Power (LADWP) proposes to enter into a long-term lease agreement with the Los Angeles Department of Recreation and Parks (LARAP) for an approximately 0.5-acre vacant LADWP-owned property (the Figueroa property), which would then be developed as a neighborhood park by an independent non-profit community organization under agreement with LARAP. The park would then become a facility operated and maintained by LARAP.

The approximately 20,000 square-foot Figueroa property is located in Los Angeles at 5800 South Figueroa Street, on the southeast corner of Figueroa Street and West 58th Street. It is immediately bounded on the south by a railroad right-of-way, which is adjacent to Slauson Avenue. A filling station is located on the south side of Slauson Avenue. On the west, the property is bounded by Figueroa Street with medical offices and a vacant lot located on the west side of Figueroa Street. On the north, the property is bounded by West 58th Street with the LADWP Electrical Distributing Station Number 4 located on the north side of West 58th Street. To the east, the property abuts a single-family residential property. The vicinity around the property is an urban area consisting primarily of single-family residences and commercial uses with some multi-family housing. The Harbor Freeway (Interstate 110) is located approximately 250 feet east of the property. **Figure 1** depicts the regional location and **Figure 2** depicts the vicinity of the Figueroa property.



Source: ESRI 2017; Created by: AECOM, 2017.

0 3 6 Miles

City of Los Angeles Boundary

Figure 1

Regional Location Map

Source:Google Earth Image 2021

0 40 80 Feet

Figueroa Property

Figure 2

Figueroa Property

To prepare the property for park development, LADWP would complete the cleanup of the remaining contaminated soil to achieve the standards for California Department of Toxic Substances Control (DTSC) Human Health Risk Assessment (HERO) Note 3 residential screening levels. For contaminants where a DTSC screening level has not been established, the cleanup would achieve United States Environmental Protection Agency (USEPA) regional screening levels for residential soil. The remediation of the property would involve the use of an excavator to remove contaminated soil and a loader to load the soil onto dump trucks, which would haul the soil to a landfill approved to accept such material. The volume of the exported material that would need to be trucked off site is estimated at 3,380 loose cubic yards and would require approximately 188 truck trips to haul the soil. The soil would be hauled to a Class I landfill, which is a landfill approved by the State of California to accept, treat as necessary, and store contaminated soil. The closest Class I landfill to the Figueroa property is Clean Harbors Buttonwillow, which is located approximately 144 miles north of the property and has the capacity to accept the volume of contaminated soil to be removed. Based on past cleanup efforts, it is estimated that approximately 20 truckloads a day could be removed from the property and transported to Clean Harbors Buttonwillow. It would take approximately 10 workdays to remove the contaminated soil from the property. However, due to unforeseen delays, the actual number of workdays required may be greater.

The project site would be backfilled with approximately 5,850 loose cubic yards of clean imported soil, which would require approximately 325 truck trips to deliver the import soil to the property. Once the soil is dumped at the site, it would be spread by a loader and/or small bulldozer. The soil would be compacted using a vibratory compactor in excavated pits within the footprints of the former pump station building, water reservoir, or fuel storage tank in the central and western portions of the property. A roller compactor, small bulldozer, and/or loader across the wider site. It is assumed that approximately two truckloads could be dumped and spread across the property every hour, which would generate an average of approximately 16 truck trips per day. It is anticipated that the backfill material would be available within 25 miles of the project site. At 16 truckloads per day, it would take approximately 20 workdays backfill the property. However, due to unforeseen delays, the actual number of workdays required may be greater. It is therefore anticipated that the entire site preparation effort (both the removal of contaminated soil and the importation and placement of clean soil) would take approximately two months. It is anticipated to begin in mid-winter 2022. Approximately ten on-site personnel would be required throughout construction activities.

Although actual design of the park is yet to be accomplished, it is anticipated that it would include pathways, seating elements, shade structures, exercise stations, and children's play equipment. The park would be entirely enclosed by a perimeter fence, allowing it to be physically secured during non-operating hours (between sunset and sunrise). The park is anticipated to serve the immediate surrounding community and would, therefore, not include any vehicle parking.

The precise schedule for park construction has not been determined, but for environmental impact analysis purposes, it has been assumed it would begin in early to mid-spring 2022, right after completion of the site preparation task. This schedule represents a conservative assumption related to the assessment of air quality impacts because air pollutant emissions models presume reduced emissions factors for on-road vehicles and off-road equipment as time passes and control technologies improve.

The construction of the park would involve the use of minimal construction equipment, which would include a skid-steer loader(s) and forklift(s) for fine grading and unloading and placing of heavier elements. No more than one to two truck trips in a given day would be required to deliver materials, including concrete. Fewer than ten on-site construction personnel would be required. It is anticipated that construction of the park would take approximately six months to complete.

Post-construction, the park would be open every day throughout the year from sunrise to sunset but would be secured by locked gates at night. Since no parking would be provided, most visitors are anticipated to access the site from the surrounding neighborhood by foot.

Noise and Vibration Topical Information

The standard unit of measurement for noise is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The A-weighted scale, abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. The noise analysis discusses sound levels in terms of Equivalent Noise Level (L_{eq}). L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or "point source," decreases by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots or smooth bodies of water) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt, grass, or scattered bushes and trees) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level is 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet over a hard surface.

Noise generated by a mobile source decreases by approximately 3 dBA over hard surfaces and 4.8 dBA over soft surfaces for each doubling of the distance. Generally, noise is most audible when the source is in a direct line-of-sight of the receiver. Barriers, such as walls, berms, or buildings that break the line-of-sight between the source and the receiver greatly reduce noise levels from the source since sound can only reach the receiver by bending over the top of the barrier. However, if a barrier is not sufficiently high or long to break the line-of-sight from the source to the receiver, its effectiveness is greatly reduced.

Studies have shown that the smallest perceptible change in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA would be noticeable and may evoke a community reaction. A 10-dBA increase is subjectively heard as a doubling in loudness and would likely cause a negative community reaction.

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as rock blasting, pile driving, and heavy earth-moving equipment. High levels of vibration may cause physical personal injury or damage to buildings. However, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that may affect concentration or disturb sleep. In addition, high levels of vibration may damage fragile buildings or interfere with equipment that is highly sensitive to vibration (e.g., electron microscopes).

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The VdB acts to compress the range of numbers required to describe vibration.[1]

Existing Setting

The vicinity around the property is a densely developed urban area consisting primarily of single-family residences and commercial uses, with some multi-family housing. It is immediately bounded on the south by a railroad right-of-way, which is adjacent to Slauson Avenue. A filling station is located on the south side of Slauson Avenue. On the west, the property is bounded by Figueroa Street with medical offices and a vacant lot located on the west side of Figueroa Street. On the north, the property is bounded by West 58th Street with the LADWP Electrical Distributing Station Number 4 located on the north side of West 58th Street. To the east, the property abuts a single-family residential property. The primary sources of noise within the project vicinity are Figueroa Street and Slauson Avenue, which are major arterial streets. Further to the east, the Interstate 110 Freeway also contributes to the existing noise environment. Occasional aircraft flyovers and freight train noise related to the railroad tracks are intermittent sources of noise.

Sensitive receptors located within 500 feet of the project site are shown in **Table 1** and illustrated in **Figure 3**. Sensitive receptors include various residences, El Divino Salvador Medical Clinic, Furst Motel, and Figueroa Church of Christ. The existing noise levels were monitored on Thursday May 20, 2021, from 12:00 p.m. to 2:30 p.m. in 15-minute increments. This time of day represents a typical construction time without the added noise source of peak hour traffic. Monitored noise levels ranged from 59.1 to 69.3 dBA L_{eq}. The monitoring locations are shown in **Figure 3** and monitored noise levels are shown in **Table 2**.

TABLE 1: SENSTIVE RECEPTORS

Figure 3 ID	Sensitive Receptor
1	Residences on W. 58th St. (East of Figueroa St.)
2	Residences to the north on W. 58th St. (East of Figueroa St.)
3	El Divino Salvador Medical Clinic
4	Residences of 57th St. (East of Figueroa St.)
5	Furst Motel
6	Residences on W. 58th St. (West of Figueroa St.)
7	Residences on 57th St. (West of Figueroa St.)
8	Residences on Figueroa St. (South of Slauson Ave.)
9	Figueroa Church of Christ
10	Residences on Denver Ave.
11	Residences on S. Flower St.

SOURCE: TAHA, 2021.

[1]FTA, *Transit Noise and Vibration Impact Assessment*, September 2018.

TABLE 2: EXISTING AMBIENT NOISE LEVELS

Noise Measurement Site (Figure 3)	Noise Monitoring Location	Noise Level (dBA, L_{eq})
1	Furst Motel (5735 S. Figueroa St., Los Angeles, CA 90037)	69.3
2	Residences (437 W. 58th St., Los Angeles, CA 90037)	64.0
3	Residences (519 57th St., Los Angeles, CA 90037)	60.3
4	Residences (5838 Denver Ave., Los Angeles, CA 90044)	62.0
5	Residences (5865 S Flower St., Los Angeles, CA 90003)	59.1

SOURCE: TAHA, 2021.

Source: TAHA, 2021.

taha environmental planners
TAHA 2021-038

LADWP Figueroa Park Project
Noise and Vibration Technical Memorandum
AECOM

FIGURE 3
NOISE MONITORING LOCATIONS AND SENSITIVE RECEPTORS

Regulatory Framework

Noise

Federal. The Noise Control Act of 1972 established programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In 1981, the United States Environmental Protection Agency (USEPA) determined that subjective issues such as noise would be better addressed at local levels of government, thereby allowing more individualized control for specific issues by designated federal, state, and local government agencies. Consequently, in 1982, responsibilities for regulating noise control policies were transferred to specific federal agencies, and state and local governments. However, noise control guidelines and regulations contained in the USEPA rulings in prior years remain in place. No federal noise regulations are directly applicable to the proposed project.

State. The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation. State regulations governing noise levels generated by individual motor vehicles and occupational noise control are not applicable to planning efforts, nor are these areas typically subject to CEQA analysis.

Local. The City of Los Angeles has established policies and regulations concerning the generation and control of noise that could adversely affect its citizens and noise-sensitive land uses. Regarding construction, Los Angeles Municipal Code (LAMC) Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited) states that no construction or repair work shall be performed between the hours of 9:00 p.m. and 7:00 a.m. on Monday through Friday since such activities would generate loud noises and disturb persons occupying sleeping quarters in any adjacent dwelling, hotel, apartment, or other place of residence. Further, no person, other than an individual homeowner engaged in the repair or construction of his/her single-family dwelling, shall perform any construction or repair work of any kind or perform such work within 500 feet of land so occupied before 8:00 a.m. or after 6:00 p.m. on any Saturday, nor at any time on any Sunday or on a federal holiday.

Chapter XI (Noise Regulation) of the LAMC addresses sources of noise other than construction activities. Chapter XI is intended to prohibit unnecessary, excessive and annoying noises from all sources within the City. A noise level increase from certain regulated noise sources of 5 dBA over the existing or presumed ambient noise level at an adjacent property line is considered a violation of the Noise Regulations. The 5-dBA increase above ambient is applicable to City-regulated noise and it is applicable any time of the day.

LAMC Section 112.01 (Radios, Television Sets, and Similar Devices) states that it is unlawful to use or operate any radio, musical instrument, television receiver, or other machine or device for the producing, reproducing or amplification of the human voice, music, or any other sound, in such a manner, as to disturb the peace, quiet, and comfort of neighbor occupants or any reasonable person residing or working in the area. A violation of the LAMC results if the noise level caused by such use or operation which is audible to the human ear at a distance in excess of 150 feet from the property line of the noise source, within any residential zone of the City or within 500 feet thereof. In addition, a violation results if any noise level caused by such use or operation which exceeds the ambient noise level on the premises of any other occupied property by more than 5 dBA.

LAMC Section 112.04 (Powered Equipment Intended for Repetitive Use in Residential Areas and Other Machinery, Equipment, and Devices) specifies that no person shall operate any lawn mower, backpack blower, lawn edger, riding tractor, or any other machinery, equipment, or other mechanical or electrical device, or any hand tool which creates a loud, raucous or impulsive sound, within any residential zone or within 500 feet of a residence between the hours of 10:00 p.m. and. 7:00 a.m. of the following day.

LAMC Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools) specifies the maximum noise level of powered equipment or powered hand tools. Any powered equipment or hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet is prohibited. However, this noise limitation does not apply where compliance is technically infeasible. Technically infeasible means the above noise limitation cannot be met despite the use of mufflers, shields, sound barriers and/or any other noise-reduction device or techniques during the operation of equipment.

LAMC Section 116.01 (Loud, Unnecessary, and Unusual Noise) states that it shall be unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, and unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.

In addition to the LAMC, the Noise Element of the General Plan includes noise compatibility guidelines. These guidelines may be used to assess potential effects of new projects to the local community. The Noise Compatibility Guidelines are shown in **Table 3**.

Vibration

The City has not established significance thresholds related to vibration. In the absence of City thresholds, Federal Transit Administration (FTA) guidance may be used to assess the potential for vibration-related damage and annoyance.[2] For damage, the impact criteria are established based on the structural foundation of the potentially impacted building. Site visits indicate that the buildings near the project site are constructed with non-engineered timber and masonry. Vibration levels that exceed a peak particle velocity (PPV) of 0.2 inches per second could potentially damage these types of buildings. Historic uses are held to a vibration damage threshold of 0.12 inches per second. The most stringent annoyance criteria related to annoyance is 65 VdB for buildings subject to frequent vibration events (e.g., multiple equipment passbys). The frequent event annoyance criteria for residences and institutional land uses with primarily daytime use are 72 VdB and 75 VdB, respectively.

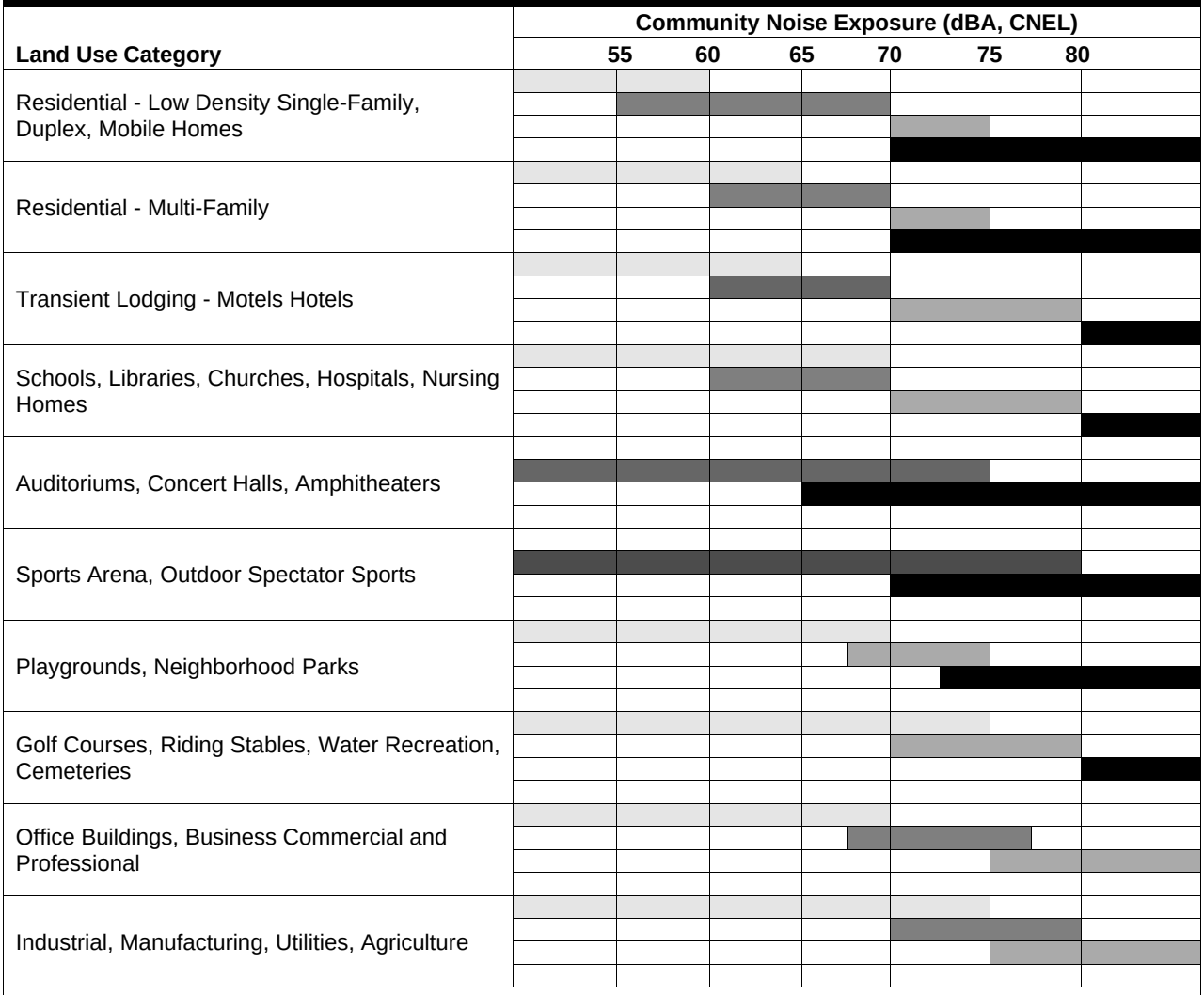
Significance Thresholds

This Assessment was undertaken to determine whether construction or operation of the proposed project would have the potential to result in significant environmental impacts related to noise or vibration in the context of the Appendix G Environmental Checklist criteria of the CEQA Guidelines. Implementation of the proposed project may result in a significant environmental impact related to noise and vibration if the proposed project would result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
b) Generation of excessive ground-borne vibration or ground-borne noise levels; and/or
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

[2]FTA, *Transit Noise and Vibration Impact Assessment*, September 2018.

TABLE 3: GUIDELINES FOR NOISE COMPATIBLE LAND USE



Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.

Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable - New construction or development should generally not be undertaken.

SOURCE: California Office of Noise Control, Department of Health Services.

Noise

The proposed project would exceed local standards in the LAMC and significantly increase temporary construction noise levels if:

- Construction activities would occur within 500 feet of a noise-sensitive use and outside the hours allowed in the LAMC. The allowable hours of construction in the LAMC include 7:00 a.m. to 9:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturday. No construction activity is allowed on Sundays or federal holidays; and/or
- Equipment noise levels would exceed 75 dBA L_{eq} at 50 feet unless technically infeasible.

The proposed project would exceed local standards and significantly increase permanent operational noise levels if:

- Permanent ambient noise level measured at the property line of affected uses increases by 3 dBA CNEL to or within the Normally Unacceptable or Clearly Unacceptable categories, as shown in **Table 3**, or any 5 dBA CNEL or more increase in noise level.

Vibration

The construction-related vibration analysis considers the potential for building damage and annoyance. Maximum vibration levels were assessed based on frequent vibration events happening more than 70 times in one day, which would be consistent with the movement of construction equipment. The proposed project would result in a significant construction or operational vibration impact if:

- Vibration levels would exceed 0.12 inches per second at historic structures; and/or
- Vibration levels would exceed 0.2 inches per second at non-historic structures.

Methodology

Noise

The noise and vibration analysis consider construction and operational sources. Noise levels associated with typical construction equipment were obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM).[3] This model predicts noise from construction based on a compilation of empirical data and the application of acoustical propagation formulas. Maximum equipment noise levels were adjusted based on anticipated percent of use. Combined construction activity noise levels were estimated by combining anticipated equipment for each activity using RCNM. The projected noise level during the construction period at receptors was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level.

According to California Department of Transportation (Caltrans) guidance, air temperature and humidity affect molecular absorption differently depending on the frequency spectrum and can vary significantly over long distances in a complex manner. Molecular absorption in air also reduces noise levels with distance. According to Caltrans, this process only accounts for about 1 dBA per 1,000 feet, which is an inaudible and negligible difference in noise levels. Noise levels have been estimated using a decrease of 6 dBA over hard surfaces for each doubling of the distance. The methodology and formulas obtained from the Caltrans Technical Noise Supplement can be viewed below.

[3]FHWA, *Roadway Construction Noise Model*, Version 1.1, August 2008.

(1) Noise Distance Attenuation Formula: $dBA_2 = dBA_1 + C \times LOG_{10} (D_1/D_2)$

Where:

dBA_1 *= Noise level at the reference distance of 50 feet*

dBA_2 *= Noise level at the receptor*

C = Coefficient for hard ground or soft ground

Hard ground C = 20

Soft ground C = 25

D_1 *= Reference distance (50 feet)*

D_2 *= Distance from source to receptor (measured distance)*

(2) Logarithmic Noise Level Addition Formula: $Ns = 10*LOG_{10}((10^{(N1/10)})+(10^{(N2/10)}))$

Where:

Ns = Noise level Sum

N1 = Noise level one

N2 = Noise level two

On-site operational noise was assessed using Soundplan Essential Version 4.0, which is a noise modeling software that uses acoustical algorithms to calculate noise levels based on distance from source to receiver, type of source, and other variables. The primary source of operational noise would be park related activities such as people conversing, and equipment use. Reference noise levels for park noise were obtained from the Soundplan database for a small park with playground equipment. Operational mobile noise was assessed qualitatively based upon the potential for the proposed project to double traffic volumes. The potential for a traffic noise impact was analyzed using guidance from Caltrans, which states that a doubling of traffic would be necessary for an audible increase along a roadway to result.[4]

Vibration

Vibration levels were estimated using example vibration levels and propagation formulas provided by FTA.[5] The methodology and formulas obtained from the FTA Transit Noise and Vibration Assessment guidance can be viewed below. Vibration damage is assessed using formula (3).

(3) *Vibration Damage Attenuation Formula:* $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

Where:

PPV_{equip} *= Peak particles velocity in inches per second of the equipment adjusted for distance*

PPV_{ref} *= Reference vibration level in inches per second at 25 feet*

D = Distance from the equipment to the receptor in feet

[4]Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

[5]FTA, *Transit Noise and Vibration Impact Assessment*, May 2006.

Impact Assessment

a) Would the proposed project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Less-Than-Significant Impact with Mitigation Incorporated)

The impact analysis is predicated on the location of noise-sensitive land uses and the existing setting. Sensitive receptors are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. They typically include residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas. The project area is surrounded primarily by single-family residential and commercial uses.

Construction

Noise impacts from construction of the proposed project would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers. Construction activities typically require the use of numerous pieces of noise-generating equipment. A mix of typical construction equipment would be used for site remediation and park development. Typical noise levels from various types of equipment that would be used during construction are listed in **Table 4**. Construction equipment noise levels were calculated using the FHWA RCNM and construction equipment specifications. Noise levels from individual pieces of equipment are expected to range from approximately 63.2 to 76.7 dBA L_{eq} at 50 feet.

To more accurately characterize construction-period noise levels, the noise levels shown in **Table 4** take into account the likelihood that multiple pieces of construction equipment would be operating simultaneously and the typical overall noise levels that would be expected. Backfill activity in excavated zones would generate the loudest noise level of approximately 80.8 dBA L_{eq} at 50 feet. Due to the relatively small approximately 0.5-acre development site, the number of pieces of equipment that could operate simultaneously would be constrained and construction noise levels would be relatively lower than that of larger sites.

Table 5 presents the estimated noise levels at the sensitive receptors within 500 feet of the proposed project. Daytime construction noise is not typically a concern for human health and is a common occurrence within the urban environment. The impact analysis is based on the construction limits in the LAMC. Construction activity would comply with the allowable hours of construction in the LAMC, including 7:00 a.m. to 9:00 p.m. Monday through Friday, 8:00 a.m. to 6:00 p.m. on Saturday, and no construction activity on Sundays or federal holidays. The LAMC limits equipment noise levels to 75 dBA L_{eq} at 50 feet unless technically infeasible. Sensitive receptor one, two and three, are anticipated to experience elevated noise levels prior to implementation of Regulatory Control Measures (RCM).

TABLE 4: PHASED CONSTRUCTION NOISE LEVELS

Construction Method	Noise Level at 50 feet (dBA, L_{eq})
Excavation	
Excavator	76.7
Front End Loader	75.1
Excavation Combined	**79.0**
Backfill Activity in Excavated Zones	
Compactor	76.2
Excavator	76.7
Front End Loader	75.1
Backfill Activity in Excavated Zones Combined	**80.8**
General Backfill Activity	
Small Dozer	72.7
Front End Loader	75.1
General Backfill Activity Combined	**77.1**
Park Development	
Skid Steer Loader	64.3
Forklift	63.2
Park Development Combined	**66.8**

SOURCE: Federal Highway Administration, *Roadway Construction Noise Model*, Version 1.1, 2008; Noise & Traffic, *Noise Levels of Lifting Trucks Sorted by Lwa*, May 25, 2001, available at https://rigolett.home.xs4all.nl/ENGELS/equipment/index.htm, accessed June 15, 2021; Bobcat, *S100 Skid-Steer Loader Specifications and Options*, available at https://www.bobcat.com/eu/loaders/skid-steer-loaders/models/s100/specs-options, accessed June 15, 2021.

TABLE 5: CONSTRUCTION NOISE LEVELS AT SENSTIVE RECEPTORS					
Figure 3 ID	**Sensitive Receptor**	**Distance to Construction (feet)**	**Existing Ambient Noise Level (dBA, L_{eq})**	**Max Construction Noise Level (dBA, L_{eq})**	**New Ambient Noise Level (dBA, L_{eq})**
Excavation					
1	Residences on W. 58th St. (East of Figueroa St.)	60	64.0	77.4	77.6
2	Residences to the north on W. 58th St. (East of Figueroa St.)	100	64.0	73.0	73.5
3	El Divino Salvador Medical Clinic	110	69.3	72.2	74.0
4	Residences of 57th St. (East of Figueroa St.)	190	60.3	62.9	64.8
5	Furst Motel	150	69.3	69.5	72.4
6	Residences on W. 58th St. (West of Figueroa St.)	250	64.0	65.0	67.6
7	Residences on 57th St. (West of Figueroa St.)	300	60.3	58.9	62.7
8	Residences on Figueroa St. (South of Slauson Ave.)	340	69.3	62.3	70.1
9	Figueroa Church of Christ	380	69.3	53.9	69.4
10	Residences on Denver Ave.	380	62.0	56.9	63.2
11	Residences on S. Flower St.	460	59.1	59.7	62.4
Backfill Activity in Excavated Zones					
1	Residences on W. 58th St. (East of Figueroa St.)	60	64.0	79.2	79.3
2	Residences to the north on W. 58th St. (East of Figueroa St.)	100	64.0	74.8	75.1
3	El Divino Salvador Medical Clinic	110	69.3	74.0	75.2
4	Residences of 57th St. (East of Figueroa St.)	190	60.3	64.7	66.0
5	Furst Motel	150	69.3	71.3	73.4
6	Residences on W. 58th St. (West of Figueroa St.)	250	64.0	66.8	68.6
7	Residences on 57th St. (West of Figueroa St.)	300	60.3	60.7	63.5
8	Residences on Figueroa St. (South of Slauson Ave.)	340	69.3	64.1	70.5
9	Figueroa Church of Christ	380	69.3	55.7	69.5
10	Residences on Denver Ave.	380	62.0	58.7	63.7
11	Residences on S. Flower St.	460	59.1	61.5	63.5
General Backfill Activity					
1	Residences on W. 58th St. (East of Figueroa St.)	10	64.0	86.9	86.9
2	Residences to the north on W. 58th St. (East of Figueroa St.)	50	64.0	77.1	77.3
3	El Divino Salvador Medical Clinic	110	69.3	70.3	72.8
4	Residences of 57th St. (East of Figueroa St.)	170	60.3	62.0	64.2
5	Furst Motel	230	69.3	68.2	71.8

6	Residences on W. 58th St. (West of Figueroa St.)	245	64.0	63.3	66.7
7	Residences on 57th St. (West of Figueroa St.)	330	60.3	56.2	61.7
8	Residences on Figueroa St. (South of Slauson Ave.)	370	69.3	61.0	69.9
9	Figueroa Church of Christ	370	69.3	52.2	69.4
10	Residences on Denver Ave.	370	62.0	55.2	62.8
11	Residences on S. Flower St.	450	59.1	58.0	61.6
Park Development					
1	Residences on W. 58th St. (East of Figueroa St.)	10	64.0	80.8	80.9
2	Residences to the north on W. 58th St. (East of Figueroa St.)	50	64.0	66.8	68.6
3	El Divino Salvador Medical Clinic	110	69.3	60.0	69.8
4	Residences of 57th St. (East of Figueroa St.)	170	60.3	51.7	60.9
5	Furst Motel	230	69.3	53.5	69.4
6	Residences on W. 58th St. (West of Figueroa St.)	245	64.0	53.0	64.3
7	Residences on 57th St. (West of Figueroa St.)	330	60.3	45.9	60.5
8	Residences on Figueroa St. (South of Slauson Ave.)	370	69.3	49.4	69.3
9	Figueroa Church of Christ	370	69.3	41.9	69.3
10	Residences on Denver Ave.	370	62.0	44.9	62.1
11	Residences on S. Flower St.	450	59.1	47.7	59.4
SOURCE: TAHA, 2021.					

The new ambient noise level of 86.9 dBA L_{eq} calculated for sensitive receptor one during general backfill activity is for the rare occurrence that construction equipment would be operating directly on the property boundary. More intense construction activities would occur towards the center of the project site where excavation would occur. The location of construction equipment is anticipated to vary throughout the day and typical construction noise levels would be less than what has been conservatively presented in **Table 5**.

The proposed project would be required to comply with the Mitigation Measures **N-1** through **N-6**, which are measures to control construction noise levels, including installing engine mufflers and noise blanket barriers. These mitigation measures would reduce noise levels associated with individual pieces of equipment and combined construction noise levels. For example, Mitigation Measure Mitigation Measure **N-1** would reduce ground-level construction noise by at least 10 dBA for ground-level receptors. For instance, temporary noise barriers produced by Echo Barrier are listed as capable of reducing noise be 10 to 20 dBA.[6] **N-2** would reduce heavy-duty equipment noise levels by at least 5 dBA by reducing engine noise.[7] Although difficult to quantify, Mitigation Measures **N-3** through **N-6** would also help control noise levels; however, it has been conservatively assumed in this analysis that no reduction in noise would occur from these measures. Mitigated noise levels are shown in **Table 6**. The proposed project would comply with the LAMC and associated standards as well as Mitigation Measures **N-1** through **N-6** to control construction noise. Therefore, the

[6]Acoustical Surfaces Inc., *Echo Barrier*, available at: acousticalsurfaces.com.

[7]USEPA, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, Page* 3, PB 206717, 1971

proposed project would result in a less than significant impact related to on-site construction noise with mitigation.

N1 The construction contractor shall ensure that barriers, such as, but not limited to, plywood structures or flexible sound control curtains extending a minimum of eight feet in height shall be erected along the eastern boundary of the Project site to minimize the amount of noise during construction on the nearby noise-sensitive uses located offsite. Noise barriers shall be capable of reducing construction noise levels by 10 dB.

N2 The construction contractor shall ensure that power construction equipment (including combustion or electric engines), fixed or mobile, shall be equipped with noise shielding and muffling devices (consistent with manufacturers' standards) during the entirety of construction of the proposed project. The combination of muffling devices and noise shielding shall be capable of reducing noise by at least 5 dBA from non-muffled and shielded noise levels. Prior to initiation of construction the contractor shall demonstrate to the city that equipment is properly muffled, shielded and maintained. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.

N3 Rubber-tired equipment shall be used rather than tracked equipment when feasible.

N4 Equipment shall be turned off when not in use for an excess of five minutes, except for equipment that requires idling to maintain performance.

N5 A public liaison shall be appointed for project construction and be responsible for addressing public concerns about construction activities, including excessive noise. As needed, the liaison shall determine the cause of the concern (e.g., starting too early, bad muffler) and implement measures to address the concern.

N6 The public shall be notified in advance of the location and dates of construction hours and activities.

TABLE 6: MITIGATED CONSTRUCTION NOISE LEVELS AT SENSTIVE RECEPTORS

Figure 3 ID	Sensitive Receptor	Distance to Construction (feet)	Existing Ambient Noise Level (dBA, L_{eq})	Mitigation /a/	Unmitigated Construction Noise Level (dBA, L_{eq})	Mitigated Construction Noise Level (dBA, L_{eq})	New Ambient Noise Level (dBA, L_{eq})
Excavation							
1	Residences on W. 58th St. (East of Figueroa St.)	60	64.0	15	77.4	62.4	66.3
2	Residences to the north on W. 58th St. (East of Figueroa St.)	100	64.0	5	73.0	68.0	69.4
3	El Divino Salvador Medical Clinic	110	69.3	5	72.2	67.2	71.4
4	Residences of 57th St. (East of Figueroa St.)	190	60.3	5	62.9	57.9	62.3
5	Furst Motel	150	69.3	5	69.5	64.5	70.5
6	Residences on W. 58th St. (West of Figueroa St.)	250	64.0	5	65.0	60.0	65.5
7	Residences on 57th St. (West of Figueroa St.)	300	60.3	5	58.9	53.9	61.2
8	Residences on Figueroa St. (South of Slauson Ave.)	340	69.3	5	62.3	57.3	69.6
9	Figueroa Church of Christ	380	69.3	5	53.9	48.9	69.3
10	Residences on Denver Ave.	380	62.0	5	56.9	51.9	62.4
11	Residences on S. Flower St.	460	59.1	5	59.7	54.7	60.5
Backfill Activity in Excavated Zones							
1	Residences on W. 58th St. (East of Figueroa St.)	60	64.0	15	79.2	64.2	67.1
2	Residences to the north on W. 58th St. (East of Figueroa St.)	100	64.0	5	74.8	69.8	70.8
3	El Divino Salvador Medical Clinic	110	69.3	5	74.0	69.0	72.1
4	Residences of 57th St. (East of Figueroa St.)	190	60.3	5	64.7	59.7	63.0
5	Furst Motel	150	69.3	5	71.3	66.3	71.1
6	Residences on W. 58th St. (West of Figueroa St.)	250	64.0	5	66.8	61.8	66.1
7	Residences on 57th St. (West of Figueroa St.)	300	60.3	5	60.7	55.7	61.6
8	Residences on Figueroa St. (South of Slauson Ave.)	340	69.3	5	64.1	59.1	69.7
9	Figueroa Church of Christ	380	69.3	5	55.7	50.7	69.4
10	Residences on Denver Ave.	380	62.0	5	58.7	53.7	62.6
11	Residences on S. Flower St.	460	59.1	5	61.5	56.5	61.0
General Backfill Activity							
1	Residences on W. 58th St. (East of Figueroa St.)	10	64.0	15	86.9	71.9	72.6

2	Residences to the north on W. 58th St. (East of Figueroa St.)	50	64.0	5	77.1	72.1	72.7
3	El Divino Salvador Medical Clinic	110	69.3	5	70.3	65.3	70.7
4	Residences of 57th St. (East of Figueroa St.)	170	60.3	5	62.0	57.0	62.0
5	Furst Motel	230	69.3	5	68.2	58.8	69.7
6	Residences on W. 58th St. (West of Figueroa St.)	245	64.0	5	63.3	58.3	65.0
7	Residences on 57th St. (West of Figueroa St.)	330	60.3	5	56.2	51.2	60.8
8	Residences on Figueroa St. (South of Slauson Ave.)	370	69.3	5	61.0	54.7	69.4
9	Figueroa Church of Christ	370	69.3	5	52.2	47.2	69.3
10	Residences on Denver Ave.	370	62.0	5	55.2	50.2	62.3
11	Residences on S. Flower St.	450	59.1	5	58.0	53.0	60.1
Park Development							
1	Residences on W. 58th St. (East of Figueroa St.)	10	64.0	15	80.8	65.8	68.0
2	Residences to the north on W. 58th St. (East of Figueroa St.)	50	64.0	5	66.8	61.8	66.0
3	El Divino Salvador Medical Clinic	110	69.3	5	60.0	55.0	69.5
4	Residences of 57th St. (East of Figueroa St.)	170	60.3	5	51.7	46.7	60.5
5	Furst Motel	230	69.3	5	53.5	48.5	69.3
6	Residences on W. 58th St. (West of Figueroa St.)	245	64.0	5	53.0	48.0	64.1
7	Residences on 57th St. (West of Figueroa St.)	330	60.3	5	45.9	40.9	60.3
8	Residences on Figueroa St. (South of Slauson Ave.)	370	69.3	5	49.4	44.4	69.3
9	Figueroa Church of Christ	370	69.3	5	41.9	36.9	69.3
10	Residences on Denver Ave.	370	62.0	5	44.9	39.9	62.0
11	Residences on S. Flower St.	450	59.1	5	47.7	42.7	59.2

SOURCE: TAHA, 2021.

In addition to on-site construction activities, noise would be generated off-site by construction-related trucks. Construction of the proposed project would require the export of excavated contaminated soil and the import of clean soil for backfilling. During export of materials from the project site, it is estimated that approximately 20 truck trips a day would be required, which would be approximately three truck trips per hour. During import of backfill material, it is estimated that approximately 16 truck trips per day would be required, which would be approximately two truck trips per hour. A doubling of traffic volume is typically needed to audibly increase noise levels along a roadway segment. **Table 7** shows traffic volumes recorded by the City of Los Angeles Department of Transportation for roadways that would be potentially utilized for trucks travelling to and from the project site. Existing peak hours trips within the project area are greater than 1,000 trips on adjacent roadways. An additional approximately three truck trips per hour would not double the volume on any roadway

segment. It is not anticipated that off-site vehicle activity would audibly change average daily noise levels due to the low volume of haul truck trips per day relative to the existing traffic volume. Therefore, the proposed project would not result in a less than significant impact related to off-site haul trucks.

TABLE 7: TRAFFIC VOLUMES ON POTENTIALLY UTILIZED TRUCK ROUTES

Roadway	Daily Traffic	Peak Hour Traffic	
		AM	PM
Figueroa St. at 57th St.	8,922	1,205	2,044
Slauson Ave. at Figueroa St.	31,831	1,714	1,920
Slauson Ave. at Harbor Freeway S/B Ramp	37,605	2,350	2,386

SOURCE: LADOT, *24 Hours Traffic Volume – Slauson Av at Figueroa St*, June 11, 2018; LADOT, *24 Hours Traffic Volume – Slauson at Harbor FWY at S/B Ramp*, December 12, 2012; LADOT, *Manual Traffic Count Summary – Figueroa St at 57th St*, July 15, 2020

Operations

The proposed project would include pathways, seating elements, shade structures, exercise stations, and children's play equipment. Park noise would primarily include noise related to outdoor recreational activity, such as people talking and children utilizing playground equipment. A typical small park with playground equipment generates a noise level of approximately 60 dBA L_{eq} at the park boundary.[8] A noise level of approximately 60 dBA L_{eq} is below the existing ambient noise level of 64.0 and 69.3 dBA L_{eq} measured on West 58th Street and Figueroa Street, respectively. As shown in **Table 8**, the incremental increase in noise would be 1.2 dBA L_{eq} and would not be audible above existing noise levels. Park noise would typically occur only during park operational hours of sunrise to sunset, occupancy would vary throughout the day (at times the park may be unoccupied), and noise would not be generated continuously during the entire 24-hour period of a day. As the 24-hour CNEL noise level is calculated by averaging the 24 individual hourly noise levels (with sensitivity weighting applied for evening and nighttime hours) there is no potential for a non-continuous 1.2 dBA L_{eq} incremental increase in noise to result in a 3 dBA or more increase in CNEL.

[8]Soundplan Essential, *Version 4.0*.

TABLE 8: OPERATIONAL NOISE LEVELS AT SENSTIVE RECEPTORS

Figure 3 ID	Sensitive Receptor	Distance to Park (feet)	Existing Ambient Noise Level (dBA, L_{eq})	Park Noise Level (dBA, L_{eq})	New Ambient Noise Level (dBA, L_{eq})	Increase (dBA, L_{eq})
1	Residences on W. 58th St. (East of Figueroa St.)	10	64.0	58.9	65.2	1.2
2	Residences to the north on W. 58th St. (East of Figueroa St.)	50	64.0	48.2	64.1	0.1
3	El Divino Salvador Medical Clinic	110	69.3	46.1	69.3	0.0
4	Residences of 57th St. (East of Figueroa St.)	170	60.3	41.5	60.4	0.1
5	Furst Motel	230	69.3	39.8	69.3	0.0
6	Residences on W. 58th St. (West of Figueroa St.)	245	64.0	42.0	64.0	0.0
7	Residences on 57th St. (West of Figueroa St.)	330	60.3	37.2	60.3	0.0
8	Residences on Figueroa St. (South of Slauson Ave.)	370	69.3	37.7	69.3	0.0
9	Figueroa Church of Christ	370	69.3	35.3	69.3	0.0
10	Residences on Denver Ave.	370	62.0	33.7	62.0	0.0
11	Residences on S. Flower St.	450	59.1	35.7	59.1	0.0

SOURCE: TAHA, 2021.

Any landscaping equipment and activity would be required to comply with the provisions of LAMC Section 112.04 (Powered Equipment Intended for Repetitive Use in Residential Areas and Other Machinery, Equipment, and Devices). The proposed project would also be required to comply with LAMC Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools) and LAMC Section 116.01 (Loud, Unnecessary, and Unusual Noise), which would be enforced through the Los Angeles Police Department. The proposed project would not generate excessive noise levels that would conflict with City standards. Therefore, the proposed project would result in a less-than-significant impact related to on-site operational noise.

Regarding potential operational mobile noise, the proposed project would not construct or provide additional parking as the park is anticipated to serve the immediate surrounding community who will likely travel a short distance to the site without a need for a car. Vehicle trips to the park would be minimal and would not double traffic volumes over existing daily traffic of 8,922 on Figueroa Street at 57th Street nor the existing daily traffic of 31,831 at Slauson Avenue at Figueroa Street (see **Table 7**). Traffic volumes would not double along any roadway and an audible increase in noise would not occur. Therefore, the proposed project would result in a less than significant impact related to operational mobile noise.

b) Would the proposed project result in generation of excessive ground-borne vibration or ground-borne noise levels? (Less-Than-Significant Impact)

Construction. Construction activity can generate varying degrees of vibration, depending on the procedure and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, and to slight damage at the highest levels. In most cases, the primary concern regarding construction vibration relates to damage.

Vibration levels for various types of construction equipment with an average source level reported in terms of velocity are shown in **Table 9**. Based on visual characteristics of adjacent structures (e.g., age), the adjacent building foundations are assumed to be constructed of non-engineered timber and masonry. According to the FTA guidance, these buildings can withstand up to 0.2 inches per second without experiencing damage. Due to the small size of the development site, equipment that would be utilized during general construction would be most similar to a small bulldozer or an excavator. A small bulldozer would generate a vibration level of 0.003 inches per second at 25 feet. The excavator would generate a vibration level of 0.04 inches per second at 25 feet. The excavator would largely be stationary on the project site and would be operational in only the central and western portions of the site, more than 25 feet from sensitive receptors. The nearest structure to the project site would be located approximately 10 feet away. A small bulldozer would generate vibration levels of approximately 0.012 inches per second at a distance of 10 feet, which would be below the damage threshold of 0.2 inches per second. A vibratory compactor would be utilized in zones where deeper excavation is needed. The distance between the compactor at the nearest excavation zone to the nearest residential structure is greater than 50 feet. A compactor at this distance would generate vibration levels of approximately 0.077 inches per second which is below the damage threshold of 0.2 inches per second for structures constructed of non-engineered timber and masonry.

TABLE 9: TYPICAL OUTDOOR CONSTRUCTION VIBRATION LEVELS

Equipment	Distance of Equipment to Nearest Structure (Feet)	PPV at 25 Feet (Inches/Second)	PPV at Nearest Structure (Inches/Second)
GENERAL CONSTRUCTION			
Small Bulldozer	10	0.003	0.012
Excavator	10	0.04	0.158
COMPACTION WORK IN EXCAVATION ZONES			
Vibratory Compactor	50	0.217	0.077

SOURCE: FTA, *Transit Noise and Vibration Impact Assessment*, September 2018; New Hampshire Department of Transportation, *Ground Vibrations Emanating from Construction Equipment*, September 8, 2012.

Three historic uses have been identified within 500 feet of construction activity using HistoricPlacesLA – Los Angeles Historic Resources Inventory, created by the City of Los Angeles' Office of Historic Resources. Historic uses can experience a vibration level of 0.12 inches per second before there is risk of damage to the structure. As shown in **Table 10** and shown in **Figure 4**, the nearest historic use LADWP Electrical Distribution Power Station Number 4, which is located approximately 75 feet from where construction activity would occur.[9] Vibration at this distance would be approximately 0.0418 inches per second from a compactor, which would be less than the vibration damage threshold of 0.12 inches per second. A historic multi-family residence and Warehouse Men's Union are 220 and 380 feet away from the project site, respectively.[10,11] They are both farther from the LADWP Electrical Distribution Power Station Number 4 and would not be susceptible to vibration damage. In addition to on-site construction activities, construction trucks on the roadway network have the potential to expose vibration-sensitive land uses. Rubber-tired vehicles, including trucks, rarely generate perceptible vibration.[12] It is not anticipated that project-related trucks would generate perceptible

[9]Los Angeles Department of City Planning Office of Historic Resources, *HistoricPlacesLA Los Angeles Historic Resources Inventory – Department of Water and Power Station #4*, accessed May 19, 2021.

[10]Los Angeles Department of City Planning Office of Historic Resources, *HistoricPlacesLA Los Angeles Historic Resources Inventory – 446 W 57TH ST*, accessed May 19, 2021.

[11]Los Angeles Department of City Planning Office of Historic Resources, *HistoricPlacesLA Los Angeles Historic Resources Inventory – Warehouse Men's Union*, accessed May 19, 2021.

[12]FTA, *Transit Noise and Vibration Impact Assessment*, September 2018.

vibration adjacent to the roadway network. Therefore, the proposed project would result in a less-than-significant impact related to construction vibration at historic uses.

TABLE 10: HISTORIC USE VIBRATION ANALYSIS

Historic Uses (Figure 4)	Address	Distance from Construction Activity (feet)	PPV at Historic Use (Inches/Second)
Department of Water and Power Station #4	5716 S. Figueroa St.	75	0.0418
Multi-family Residence	5704 S. Figueroa St.	220	0.0083
Warehouse Men's Union	5625 S. Figueroa St.	380	0.0037

SOURCE: Los Angeles Department of City Planning Office of Historic Resources, *HistoricPlacesLA*, accessed May 19, 2021. New Hampshire Department of Transportation, *Ground Vibrations Emanating from Construction Equipment*, September 8, 2012.

Vibration annoyance is another concern related to construction activity. However, perceptible vibration is not typically a concern for human health and is a common occurrence within the urban environment. Special uses such as research facilities, recording studios, and concerts halls would be potentially impacted by construction vibration annoyance due to the presences of sensitive equipment. No special uses have been identified in the project area. It likely that construction-related vibration would be perceptible at the residence abutting the project site to the east, particularly as equipment (e.g., small bulldozer) travels near the property line. The intermittent vibration annoyance exposure is not considered significant for this project as the exposure would short-term and within the City's allowable hours of construction. Therefore, the proposed project would result in a less-than-significant impact related to vibration annoyance.

Operations. The primary sources of operational vibration would include vehicles traveling to the project site for periodic maintenance. Vehicular movements would generate similar vibration levels as existing traffic conditions. The proposed project would not introduce any significant stationary sources of vibration that would be perceptible off the project site. Therefore, operational activity associated with the proposed project would result in a less-than-significant impact related to vibration.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed project expose people residing or working in the project area to excessive noise levels? (No Impact)

The project site is not located within an airport land use plan or is it located two miles of a public airport or private airstrip. Therefore, no impact related to airport or airstrip noise would occur.

Sources: City of Los Angeles Office of Historic Resources, 2021; TAHA, 2021.

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Noise and Vibration Technical Memorandum

AECOM

FIGURE 4
HISTORIC USES

References

Bobcat, *S100 Skid-Steer Loader Specifications and Options*, available at https://www.bobcat.com/eu/loaders/skid-steer-loaders/models/s100/specs-options, accessed June 15, 2021.

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

City of Los Angeles Department of Transportation (LADOT), *24 Hours Traffic Volume – Slauson Av at Figueroa St*, June 11, 2018.

City of Los Angeles Department of Transportation (LADOT), *24 Hours Traffic Volume – Slauson at Harbor FWY at S/B Ramp*, December 12, 2012.

City of Los Angeles Department of Transportation (LADOT), *Manual Traffic Count Summary – Figueroa St at 57th St*, July 15, 2020

Federal Highway Administration, *Roadway Construction Noise Model (RCNM), Version 1.1*, 2008.

Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, May 2016.

Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, September 2018.

Los Angeles Department of City Planning Office of Historic Resources, *HistoricPlacesLA Los Angeles Historic Resources Inventory – 446 W 57TH ST*, accessed May 19, 2021.

Los Angeles Department of City Planning Office of Historic Resources, *HistoricPlacesLA Los Angeles Historic Resources Inventory – Department of Water and Power Station #4*, accessed May 19, 2021.

Los Angeles Department of City Planning Office of Historic Resources, *HistoricPlacesLA Los Angeles Historic Resources Inventory – Warehouse Men's Union*, accessed May 19, 2021.

Los Angeles Municipal Code, *Chapter XI (Noise Regulation)*, December 31, 2019.

Los Angeles Municipal Code, *Section 112.04 (Powered Equipment Intended for Repetitive Use in Residential Areas and Other Machinery, Equipment, and Devices)*, December 31, 2019.

Los Angeles Municipal Code, *Section 112.05 (Maximum Noise Level of Powered Equipment or Hand Powered Tools)*, December 31, 2019.

Los Angeles Municipal Code, *Section 116.01 (Loud, Unnecessary, and Unusual Noises)*, December 31, 2019.

Los Angeles Municipal Code, *Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited)*, December 31, 2019.

New Hampshire Department of Transportation, *Ground Vibrations Emanating from Construction Equipment*, September 8, 2012.

Noise & Traffic, *Noise Levels of Lifting Trucks Sorted by Lwa*, May 25, 2001, available at https://rigolett.home.xs4all.nl/ENGELS/equipment/index.htm, accessed June 15, 2021;

Soundplan Essential, *Version 4.0*.