9001-9019 Long Beach Boulevard Habitat for Humanity Project

Final Draft
Initial Study/Mitigated Negative Declaration/ Environmental Assessment
August 2026

Prepared for:

City of South Gate
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Development Services
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A Land Use Planning, Design, and Environmental Firm

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Final Initial Study/Mitigated Negative Declaration/ Environmental Assessment

RESPONSIBLE ENTITY/LEAD AGENCY:
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GRANT RECIPIENT:
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Table of Contents

1.0 INTRODUCTION 1
2.0 DESCRIPTION OF THE PROPOSED PROJECT 5
3.0 STATUTORY CHECKLIST [24 CFR 50.4, 58.5, & 56.6 LAWS AND AUTHORITIES] 13
4.0 ENVIRONMENTAL ASSESSMENT CHECKLIST [24 CFR 58.40; REF. 40 CFR 1508.8 &1508.27] 23
5.0 CEQA ENVIRONMENTAL CHECKLIST FORM 43
6.0 CEQA ENVIRONMENTAL ANALYSIS 47
6.1 Aesthetics 47
6.2 Agriculture and Forestry Resources 51
6.3 Air Quality 53
6.4 Biological Resources 67
6.5 Cultural Resources 71
6.6 Energy 79
6.7 Geology and Soils 85
6.8 Greenhouse Gas Emissions 93
6.9 Hazards and Hazardous Materials 105
6.10 Hydrology and Water Quality 117
6.11 Land Use and Planning 127
6.12 Mineral Resources 131
6.13 Noise 133
6.14 Population and Housing 145
6.15 Public Services 147
6.16 Recreation 153
6.17 Transportation 155
6.18 Tribal Cultural Resources 161
6.19 Utilities and Service Systems 167
6.20 Wildfire 173
6.21 Mandatory Findings of Significance 175
7.0 REFERENCES 179
8.0 REPORT PREPARATION PERSONNEL 181

Appendices

Appendix A – Air Quality/Energy/Greenhouse Gas Emissions Data

Appendix B – Cultural Resource Assessment

Appendix C – Tribal Consultation Communications

Appendix D – Geology and Paleontological Background Report

Appendix E – Hazardous Materials Studies

Appendix F – Noise Study

Appendix G – Local Transportation Assessment

Appendix H – Statutory Checklist Reference Documents

Appendix I – Environmental Assessment Reference Documents

List of Figures

Figure 2-1 Regional Location Map 9
Figure 2-2 Project Location Map 10
Figure 2-3 Conceptual Site Plan 11

List of Tables

Table 6.3-1 South Coast Air Quality Management District Emissions Thresholds 53
Table 6.3-2 Local Significance Thresholds (Construction/Operations) 54
Table 6.3-3 Construction-Related Emissions (Maximum Pounds Per Day) 58
Table 6.3-4 Operational-Related Emissions (Maximum Pounds Per Day) 59
Table 6.3-5 Localized Significance of Construction Emissions (Maximum Pounds per Day) 61
Table 6.3-6 Localized Significance of Operational Emissions (Maximum Pounds per Day) 62
Table 6.6-1 Project Operational Natural Gas and Electricity Usage 81
Table 6.6-2 On-Road Mobile Fuel Generated by Project Construction Activities – By Phase 82
Table 6.8-1 Construction GHG Emissions (Unmitigated Metric Tons/Year 97
Table 6.8-2 Operational GHG Emissions (Unmitigated Metric Tons/Year) 97
Table 6.8-3 Project Consistency with the 2022 Scoping Plan 99
Table 6.8-4 Project Consistency with the 2024-2050 RTP/SCS 102
Table 6.13-1 Short-Term Noise Measurement Data (dBA) 137
Table 6.13-2 Noise Zone Standards 138
Table 6.13-3 Permitted Temporary Noise Level Increase 139
Table 6.13-4 Typical Construction Noise Levels 140
Table 6.13-5 Predicted Operational Noise Levels (dBA) 141
Table 6.13-6 Guideline Vibration Damage Potential Threshold Criteria 143
Table 6.13-7 Vibration Source Levels for Construction Equipment 143

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1.0 INTRODUCTION

1.1 Regulatory Guidance

The City of South Gate has prepared this joint Initial Study/Mitigated Negative Declaration and Environmental Assessment (IS/MND/EA) to evaluate the potential environmental effects of implementing the proposed 9001-19 Long Beach Boulevard Habitat for Humanity Project (the proposed Project) per the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

This document is a joint IS/MND/EA and is intended to satisfy the requirements of CEQA and NEPA for evaluating environmental effects and identifying the appropriate mitigation measures for any significant impacts. The decision to prepare a joint IS/MND/EA document, as opposed to separate documents, was made to present a cohesive project proposal and analysis for the public, realize efficiencies in preparation, and ensure consistent and integrated environmental analyses for both federal and state environmental review requirements. The Department of Housing and Urban Development (HUD) is the lead agency for the NEPA process and the City of South Gate (City) is the lead agency for the CEQA process.

As the lead agency for NEPA, HUD is required to conduct environmental review in accordance with NEPA prior to taking action on a proposed project. In this case, the Project is proposing to utilize HOME Investment Partnerships Program (HOME) funding for the development of affordable housing. As the lead agency under CEQA, the City of South Gate is responsible for conducting environmental review under CEQA in order to evaluate the potential environmental impacts of the proposed Project prior to taking action.

The joint IS/MND/EA serves as a planning document for decision makers. HUD will review the proposed action and alternatives in light of the evaluation contained in this document and the City of South Gate Planning Commission will consider the evaluation of potential environmental impacts contained in this joint NEPA/CEQA document in considering approval of the proposed residential project.

1.2 National Environmental Policy Act Guidelines

As stated, the Project is proposing to utilize HOME Investment Partnerships Program (HOME) funding for the development of affordable housing, which requires the proposed project to comply with NEPA. NEPA (42 United States Code [USC] 4321 et seq.) requires Federal agencies to incorporate environmental considerations in their planning and decision-making through a systematic, interdisciplinary approach. Under NEPA, Federal agencies are required to consider and publicly disclose the impacts of their actions on the human environment. NEPA applies to all Federal agencies on their actions involving implementation, authorization, regulation, or funding. With the exception of Federal actions that are categorically excluded from NEPA documentation, NEPA requires that Federal agencies prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS) to analyze impacts of their proposed action and a reasonable range of alternatives prior to making decisions, and to involve the public in the decision-making process.

The Council on Environmental Quality (CEQ), which was established along with NEPA, has adopted regulations and guidance that provide general procedures for Federal agencies to follow when preparing these documents. According to NEPA legislation, an EA is used to determine whether the proposed action has the potential to significantly affect the quality of the human environment.

The regulations issued by CEQ at 40 CFR parts 1500-1508 establish the basic procedural requirements for compliance with NEPA. These procedures are to be followed by all Federal agencies. Code of Federal Regulations (CFR) Title 24, Housing and Urban Development, Subtitle A, Part 50 implements NEPA and other environmental requirements. Part 50 provides supplemental instructions to reflect the particular nature of HUD programs and is to be used in tandem with 40 CFR parts 1500-1508. These regulations apply to all HUD policy actions. Part 58 provides instructions and guidance to recipients of HUD assistance and to other responsible entities for conducting an environmental review for a particular project or activity and for obtaining approval of a Request for Release of Funds. The EA is one of the five levels of environmental reviews listed in 24 CFR Part 58 and 24 CFR Part 50. EAs determine how a project may affect the environment and how the environment may affect the project. An EA provides sufficient evidence and analysis for determining whether an action would cause significant environmental impacts (requiring an EIS) or the agency can issue a Finding of No Significant Impact (FONSI) (40 CFR 1508.9). A FONSI is a decision document that briefly presents the reasons an action would not have a significant effect on the human environment (40 CFR 1508.13).

1.3 California Environmental Quality Act

This joint IS/MND/EA has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Sections 21000, et seq.) and the State CEQA Guidelines (14 California Code of Regulations Title 14 Sections 15000, et seq.). An Initial Study is an informational document intended to be used as a decision-making tool for the Lead Agency and responsible agencies in considering and acting on the proposed Project.

Pursuant to CEQA Guidelines Section 15063, the City, as Lead Agency, has prepared this Initial Study to determine if the proposed 9001-19 Long Beach Boulevard Habitat for Humanity Project (Project) would have a significant effect on the environment. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that mitigation cannot reduce the impact to a less than significant level for any aspect of the proposed Project, then the Lead Agency must prepare an Environmental Impact Report (EIR) to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the proposed Project as proposed may cause a significant effect on the environment, the Lead Agency may prepare a Negative Declaration (ND). If the Lead Agency finds that there is evidence of a significant impact, but the impact can be reduced through mitigation, the Lead Agency may prepare a Mitigated Negative Declaration (MND). Such determination can be made only if "there is no substantial evidence in light of the whole record before the Lead Agency" that such significant environmental impacts may occur (PRC Section 21080(c)).

Pursuant to CEQA Guidelines Section 15063(c), the purposes of an Initial Study are to:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR, MND or a ND;
2. Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND;
3. Assist in the preparation of an EIR, if one is required, by;
    a. Focusing the EIR on the effects determined to be significant,
    b. Identifying the effects determined not to be significant,

c. Explaining the reasons for determining that potentially significant effects would not be significant, and

d. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environment effects.

4. Facilitate environmental assessment early in the design of a project;
5. Provide documentation of the factual basis for the finding in a MND or ND that a project will not have a significant effect on the environment;
6. Eliminate unnecessary EIRs; and
7. Determine whether a previously prepared EIR could be used with the project.

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the proposed Project. The resulting environmental documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

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2.0 DESCRIPTION OF THE PROPOSED PROJECT

2.1 Statement of Purpose and Need for the Proposal [40 CFR 1508.9(B)]

There is an identified need for housing within the State of California and the City of South Gate, including a specific need for affordable housing. The purpose of the proposed Project is to redevelop currently unutilized and underutilized properties in order to provide affordable housing to qualified low income homebuyers at an affordable housing cost within the City of South Gate.

2.2 Project Location

The 9001-19 Long Beach Boulevard Habitat for Humanity Project (referenced herein as "Project") site is located in the City of South Gate within the County of Los Angeles; refer to Figure 2-1, *Regional Location Map*. The Project site is approximately 0.66 acres located at 9001-19 Long Beach Boulevard in the western portion of the City, at the southwest corner of the Willow Place and Long Beach Boulevard intersection; refer to Figure 2-2, *Project Location Map*.

Regional access to the site is provided via the Interstate 105 Freeway (I-5) located south of the Project site, Interstate 110 Freeway (I-10) located west of the Project site, and the Interstate 710 Freeway located east of the Project site. Local access to the site is provided from Long Beach Boulevard and Willow Place.

2.3 Existing Conditions and Trends [24 CFR 58.40(a)]

ON-SITE LAND USES

The two northern parcels of the Project site (APNs 6204-025-900 and -901) are currently vacant and contain asphalt in disrepair from a former parking lot and dirt. The approximately 0.29-acre southern parcel (APN 6204-025-902) is developed with an approximately 640 square foot building and asphalt, currently occupied by an auto repair shop. Historical use of the southern parcel has resulted in elevated lead and metals requiring remediation. The Project site is currently accessed from two driveways on Long Beach Boulevard to the southern parcel, a driveway on Long Beach Boulevard to one of the northern parcels (APN 6204-025-901) and a driveway on Willow Road for access to the other northern parcel (APN 6204-025-900).

GENERAL PLAN AND ZONING

According to the South Gate General Plan 2035 Corridor Map (Community Design Element Figure CD 5), the Project site is located within the Long Beach Corridor Sub-Area 3. Corridors are the major transportation thoroughfares and access routes in the City. In the Long Beach Corridor Sub-Area 3, Neighborhood Medium-High, Boulevard Medium-High, and Open Space uses are strongly encouraged. The Neighborhood Medium-High designation provides for attached single-family and multi-family housing. The designation is generally located along relatively high frequency roadways such as parts of Long Beach Boulevard. The designation encourages new development to create an attractive street front where residents can meet and interact. Access to residential property in this designation is by private vehicle, public transit, sidewalks, or bicycle network. Allowed land uses include duplexes, triplexes, fourplexes; townhomes and rowhouses; multi-family; parks, plazas, and open space; education; cultural; public assembly, and civic and institutional. Permitted density (excluding any density bonuses) for the land use is 21 to 40 dwelling units per acre with a maximum of four stories. The designation also includes

requirements for pedestrian and public transit access, frontage and building placement, and parking, vehicle access, and services.

The City of South Gate Zoning Map identifies the zoning for the site as UN (Urban Neighborhood). The UN zone is intended for areas adjacent to or surrounding major community corridors to provide retail and service uses in a more automotive-oriented setting and to provide buildings that transition to adjacent established neighborhoods. The UN zone promotes the blending of housing, retail and services, office, and civic uses.

SURROUNDING USES

The Project site is surrounded by a mix of industrial, open space, and commercial land uses:

- North: The Project site is bounded by Willow Place roadway to the north. North of Willow Place is a hotel and multi-family residential uses zoned Corridor 2 (CDR2).
- East: The Project site is bounded by Long Beach Boulevard to the east. East of the roadway are hotel and commercial uses zoned UN.
- South: Directly south of the Project site are commercial and single-family residential uses zoned UN and Neighborhood Medium (NM) – Corridor Transition Overlay.
- West: To the west of the site are single-family and multi-family residential uses zoned Neighborhood Medium (NM) – Corridor Transition Overlay.

2.3 Description of the Proposal [24 CFR 50.12 & 58.32; 40 CFR 1508.25]

The Project proposes the removal of all existing on-site improvements and structures within the 0.66-acre site and construction of a common interest subdivision and affordable housing development. The Project proposes to construct 14 two- and three-story attached townhomes in four buildings; refer to Figure 2-3, *Conceptual Site Plan*. The proposed townhomes total 18,656 square feet of building area and have a combined building footprint of 9,772 square feet. Each building will have a maximum height of 33 feet, two inches to the top of the parapet. All 14 townhomes will be sold to qualified low income homebuyers at an affordable housing cost. The units will include six floor plans ranging from 1,100 to 1,372 square feet. Of the 14 units, 13 will be three stories and have three bedrooms and 2.5 bathrooms. One unit will be handicap accessible. The accessible unit will be two stories and have two bedrooms and two bathrooms. The common areas will include guest surface parking areas, outdoor benches, and community green space. Landscaping will be installed along the perimeter and interior of the site.

PARKING

South Gate Municipal Code Section 11.33.080, *Urban Mixed-Use Zone Requirements*, states that single-family dwellings require two enclosed spaces and 0.2 guest spaces per dwelling unit. The Project would require two enclosed spaces for each of the units for a total of 28 enclosed spaces. An additional three guest spaces would be required based on the market rate units. The Project proposes a total of 27 garage parking stalls, including attached two car garages for 13 of the 14 units, with two of the units having tandem parking. The accessible unit will have an attached one car garage. An additional five open parking stalls for guest parking will be provided on the site, including one accessible parking stall and one electric vehicle (EV) stall.

SITE ACCESS

Access to the Project site is proposed from two driveways, one located on Willow Place and one located on Long Beach Boulevard. The proposed driveway on Willow Place would allow for egress only via right-turn out. The proposed driveway on Long Beach Boulevard would allow for ingress/egress via right-turn in and out. Pedestrian access would be provided to the individual units from Willow Place and Long Beach Boulevard. A private interior driveway system, consistent with Los Angeles County Fire access requirements, would provide access to the individual townhome units; refer to Figure 2-3.

INFRASTRUCTURE

Water and sewer for the individual units will connect to existing laterals in Willow Place and Long Beach Boulevard. An on-site stormwater capture system (dry well system) will be placed under the driveway behind the proposed units. The system will meet low impact development (LID) requirements and will discharge to Long Beach Boulevard. All appliances, water heaters, and HVAC systems for the Project will be electric; gas service will not be provided for the development.

PROJECT CONSTRUCTION AND PHASING

Before construction activities commence on the site, remedial excavation of impacted soil at 9019 Long Beach Boulevard will occur. The remedial excavation will remove, transport, and dispose of contaminated soil. It is anticipated that up to 100 cubic yards of contaminated soil will require disposal.[1] No off-site excavation will be performed; refer to Section 4.9, Hazards and Hazardous Materials, for additional information regarding site characterization and remediation.

Construction activities are anticipated to occur over 19 months, with construction commencing in August 2027 and being completed in April 2029. Construction activities would include demolition, site preparation, grading, building construction, and paving, architectural coating, and landscaping.

2.4 Discretionary Actions

HUD, as the NEPA Lead Agency, has authority over review and approval of the Environmental Assessment (EA).

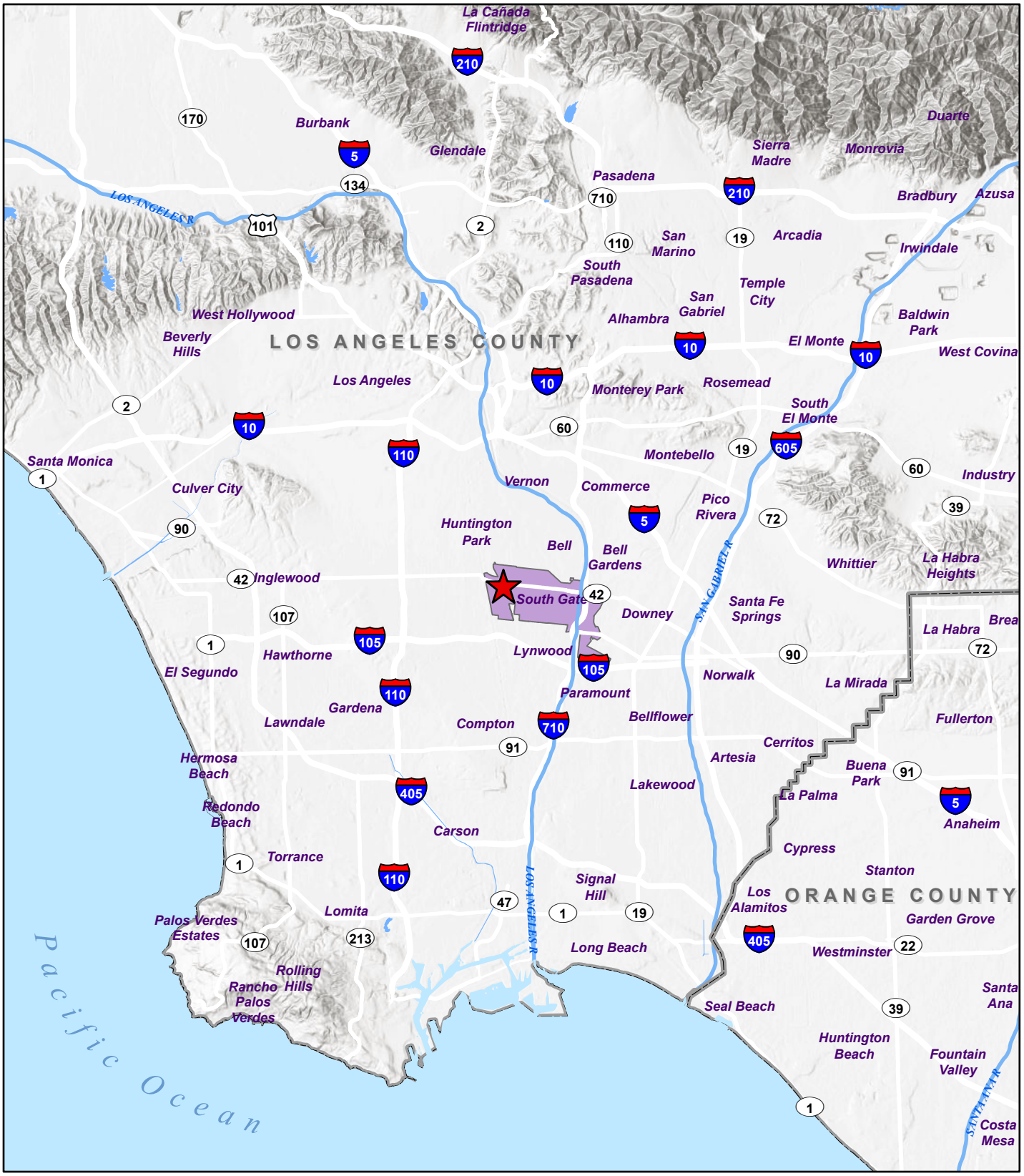
The City of South Gate, as the CEQA Lead Agency, has discretionary authority over the proposed Project. The Project would be subject to various City permits and approvals, including, but not limited to:

- Final Mitigated Negative Declaration (MND);
- Tentative Tract Map No. 84210 to allow the subdivision of three parcels into a 14-unit affordable residential townhouse development, within the Urban Neighborhood (UN) zone; and
- Administrative Modifications (Major) PL No. PL26-0191 for four Administrative Modifications to: (1) reduce the required parking setback from 10 feet to zero feet; (2) reduce the required building setback from 10 feet to 5 feet for Unit 10; (3) increase the fence height along the street frontages

[1] Export of up to 357 cubic yards of fill, import of 357 cubic yards of replacement fill, and 200 cubic yards of additional fill material have been used in Section 6.0, CEQA Environmental Analysis, to provide a conservative analysis of potential soil export and import quantities. These potential soil export and import quantities also include the anticipated volume of contaminated soil.

from 3 feet to 3½ feet; and (4) increase the fence height along the southwest corner of Long Beach Boulevard and Willow Place.

The Project would also require administrative approvals from the City, including, but not limited to grading, building, and occupancy permits.



Legend

- Project Location
- County Boundary
- City of South Gate

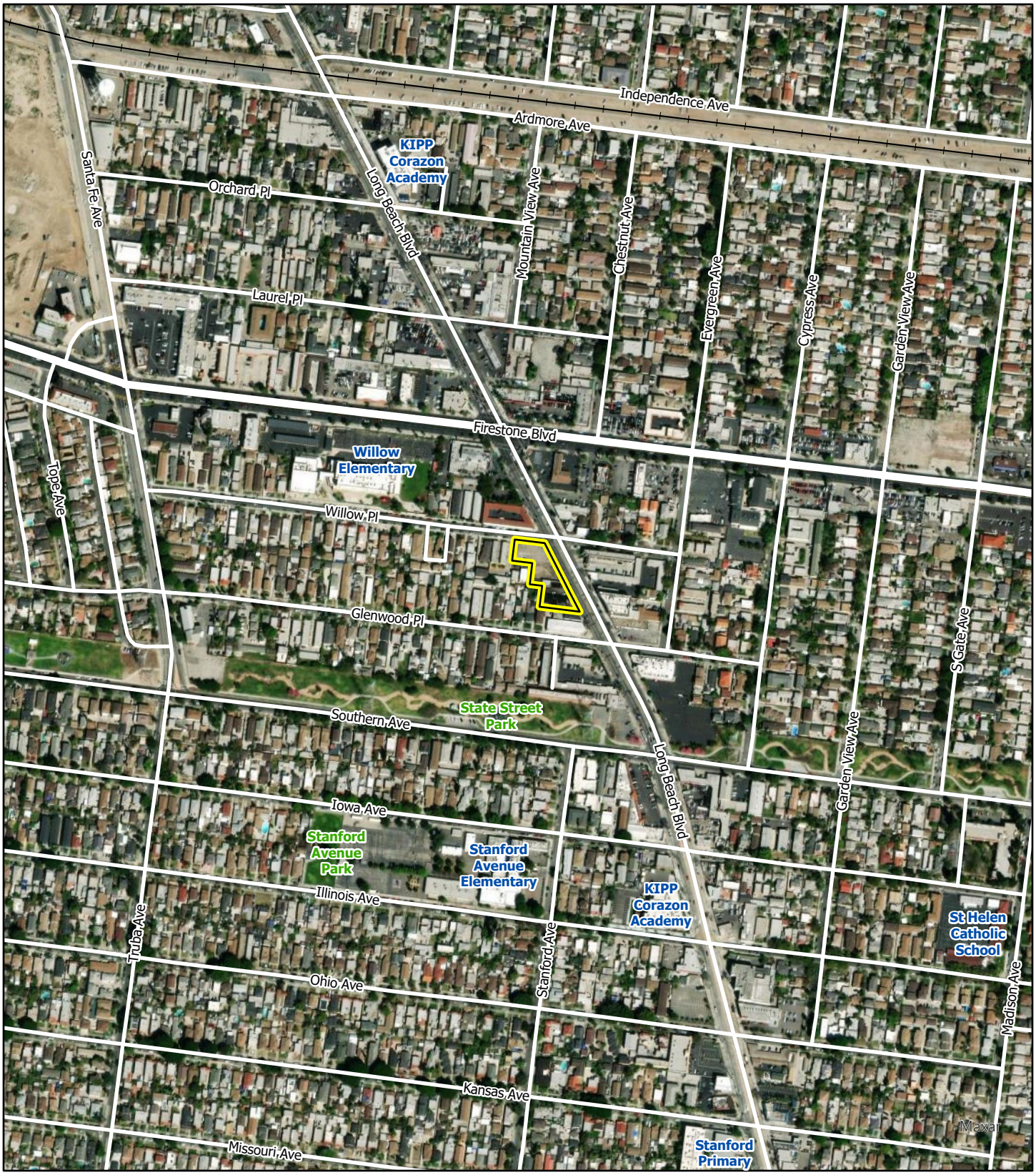
9001-19 LONG BEACH BLVD RESIDENTIAL PROJECT

Figure 2-1. Regional Location Map

0 2 4 Miles

Sources: ESRI Terrain: Multi-Directional Hillshade; California State Geoportal. Map date: November 16, 2022.

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9001-19 LONG BEACH BLVD RESIDENTIAL PROJECT

Legend

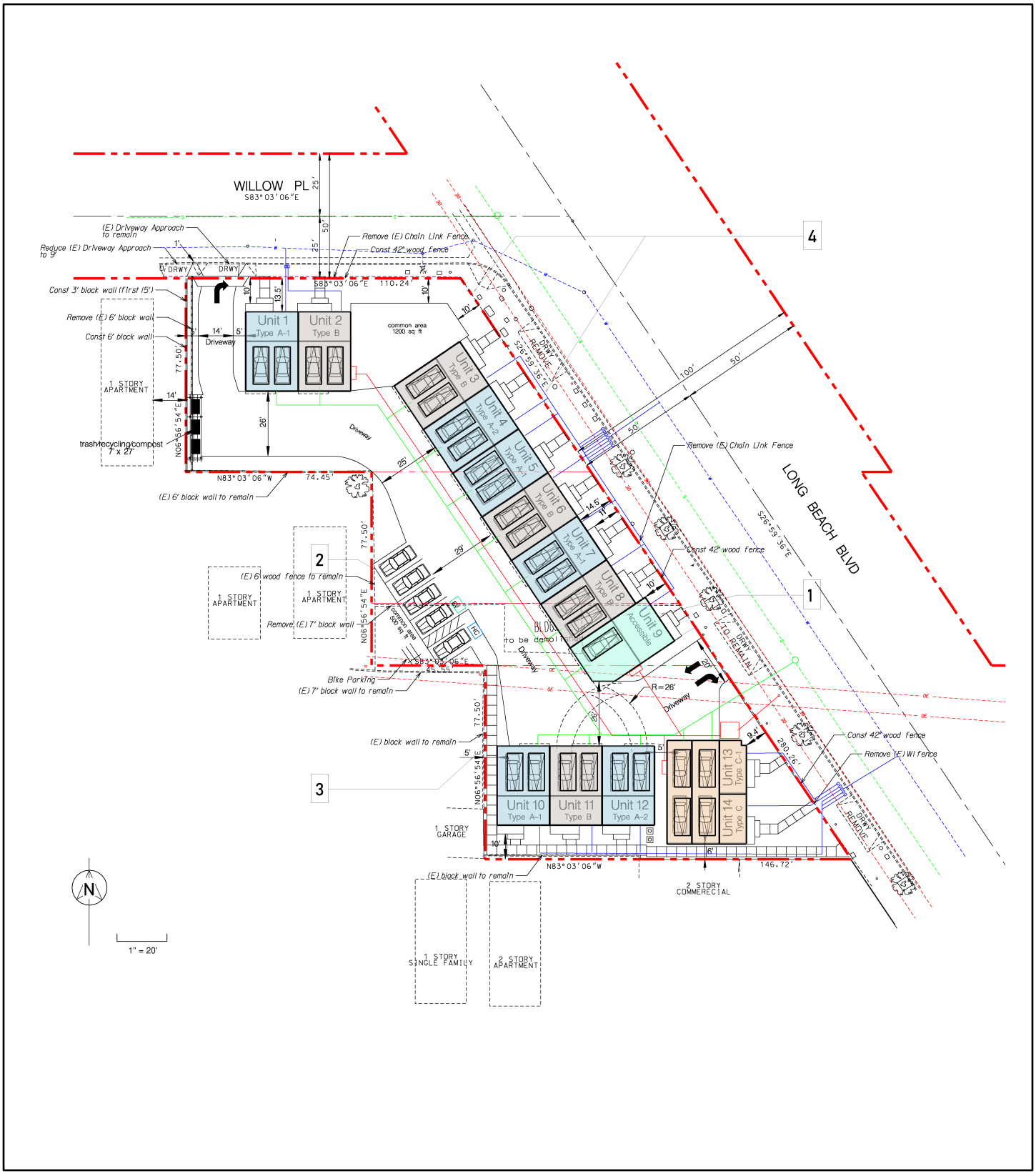
Project Boundary

Figure 2-2. Project Location Map

0 200 400
Feet

Sources: ArcGIS Online World Imagery Map Service; Los Angeles County GIS. Map date: November 15, 2022.

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Unit Types

- Type A
- Type B
- Type C
- Type D

9001-19 LONG BEACH BLVD RESIDENTIAL PROJECT

Figure 2-3. Conceptual Site Plan

0 25 50 Feet

Sources: Habitat for Humanity of Greater Los Angeles, 1-9-2026. Map date: June 3, 2026.

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3.0 STATUTORY CHECKLIST [24 CFR 50.4, 58.5, & 56.6 LAWS AND AUTHORITIES]

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Appendix H, *Statutory Checklist Reference Documents*, has been included at the end of this document to provide reference sources used to determine compliance among statutes, executive orders, and regulation lists.

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	**ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?**		**COMPLIANCE DOCUMENTATIONS**
	YES	**NO**	
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.6			
Airport Hazards [24 CFR 51 Subpart D]		X	The City of South Gate is located in central Los Angeles, and is a highly urbanized area. The Project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport. The closest airports are the Compton/Woodley Airport, located approximately 4.5 miles southwest of the Project site; the Hawthorne Municipal Airport (Jack Northrop Field), located approximately 6.5 miles southwest of the Project site; the Los Angeles International Airport, located approximately 9.1 miles west of the Project site; and the Long Beach Airport, located approximately 9.4 miles south of the Project site. The Project is in compliance with Airport Hazards requirements.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]		X	The Project site is located approximately 16 miles from the Pacific Ocean. The City of South Gate does not contain any Coastal Barrier Resources units. Therefore, this Project is in compliance with the Coastal Barrier Resources Act.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]		X	The Federal Emergency Management Agency (FEMA) maps and rates flood hazard zones throughout the United States. These zones are depicted on a Flood Insurance Rate Map (FIRM), designated by Community Map and Panel numbers. Flood hazard areas identified on the Flood Insurance Rate Map are identified as a Special Flood Hazard Area (SFHA).

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
			The Project site is approximately 16 miles east of the Pacific Ocean, approximately 2.7 miles west of the Los Angeles River, and there are no large bodies of standing water near the Project site. The Project involves construction of housing units. According to the FEMA Flood Insurance Rate Map (Flood Map #06037C1805F, effective on 09/26/2008), the Project site is located within an area of minimal flood hazard. The Project site is located within Zone X, areas determined to be outside the 0.2% annual chance floodplain. The Project site is not located in a Special Flood Hazard Area and therefore floodplain management regulations do not apply and flood insurance is not required by FEMA.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5			
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93		X	The Project site is located within the South Coast Air Basin (SCAB), which is under the South Coast Air Quality Management District's (SCAQMD) jurisdiction. The SCAQMD is required, pursuant to the Federal Clean Air Act (FCAA), to reduce emissions of criteria pollutants for which SCAB is in non-attainment. SCAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. As discussed in Section 6.3, *Air Quality*, the Project's construction-related emissions and operational-related emissions were calculated using the California Air Resources Board (CARB)-approved CalEEMod computer program, which is designed to model emissions for land use development projects. As shown in Table 6.3-3, all construction-related criteria pollutant emissions would remain below their respective thresholds. Further, as shown in Table 6.3-4, emission calculations generated from CalEEMod demonstrate that Project operations would not exceed the SCAQMD thresholds for any criteria air pollutants. Therefore, the Project would be in compliance with the Clean Air Act.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)		X	This Project is not located in, and does not affect, a Coastal Zone as defined in the *California Coastal Commission Coastal Management Program Final 309 Assessment and Strategy 2021 to 2025 Enhancement Cycle* (State Coastal Management Plan). The Project is in compliance with the Coastal Zone Management Act.

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	X		The Project site is comprised of three parcels (APNs 6204-025-900, -901, and -902). As discussed in Section 6.9, *Hazards and Hazardous Materials*, a Phase I ESA (2019), Phase II ESA (2019), and Additional Phase II ESA (2020) were conducted for the Project site. The Phase I ESA identified the southern parcel (APN 6204-025-902) and historical gasoline stations within the area as a potential recognized environmental condition (REC) requiring further study. A Phase II ESA was conducted and found elevated lead levels, thallium above residential screening levels, and TPH as oil (TPHo) at a concentration equaling the soil screening level. An Additional Phase II ESA was conducted to further analyze conditions at the site. Based on the findings of the Additional Phase II ESA, it was determined that lead concentrations are elevated at levels above the screening levels for residential properties in shallow soils in 4 of the 22 soil sampling locations at the Project site; detections of thallium in eight of the 18 soil samples analyzed were present at levels exceeding the residential screening levels; and the area of TPHo exceeding soil screening criteria appears to have been delineated and is limited to one location on the site at a depth of 0.5 feet below ground surface (bgs). On-site remediation activities will be required to ensure removal of contaminated soil in order to allow for development of the site with proposed residential uses. An Equitable Community Revitalization Grant (ECRG) through the Department of Toxic Substance Control (DTSC) has been awarded to assist with funding environmental cleanup activities at the Project site to allow for potential residential development. A Final Preliminary Endangerment Assessment (PEA) Work Plan was prepared by Tetra Tech on behalf of the Project applicant, in accordance with the Standard Voluntary Agreement executed between the applicant and the DTSC on March 30, 2022. The Final PEA Work Plan proposed additional soil and soil vapor sampling to fill data gaps identified by the previous Phase II ESAs. DTSC approved the Final PEA Work Plan on June 3, 2025. Additional coordination between the Project applicant, SCS Engineers, and DTSC resulted in a revised sampling scope of

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
			work (referred to as the Revised Workplan) that was approved by DTSC on October 6, 2025. In October 2025 additional soil and soil vapor samples were collected at the site with oversight provided by DTSC in accordance with the Revised Workplan; refer to Section 6.9. Prior to the issuance of permits for demolition and grading, the Project applicant would be required to perform remediation activities as specified in the Voluntary Agreement in accordance with applicable local, State, and federal statutes, regulations, ordinances, rules, and guidance documents, in particular, Health and Safety Code section 25300 et seq., as amended. Remediation activities are occurring under DTSC oversight. As part of the agreement, a Removal Action Workplan (RAW) and Soils Management Plan (SMP) will be prepared for approval by DTSC identifying the onsite contamination, goals to be achieved by the removal action, recommended alternative, Sampling and Analysis Plan and Health and Safety Plan to be followed during the remedial excavation and transportation activities (Mitigation Measure HAZ-1). Removal, transportation, and disposal of impacted soil will be performed in accordance with applicable federal, State, and local laws, regulations, and ordinances. Excavation of contaminated material will involve the removal of non-hazardous waste soil, non-RCRA, and potentially RCRA waste soil requiring disposal at both a class III and class I landfill, respectively. Onsite excavation activities will be monitored and samples will be collected to determine the limits of excavation and ensure successful removal of contaminated soils under DTSC oversight. Contaminated soil will be disposed of at a disposal facility. The findings of the remedial excavation will be presented in a remedial action completion report that includes soil sample data tables and figures confirming completion of remediation activities for approval by DTSC (Mitigation Measure HAZ-2). As further discussed in Section 6.9, due to the age of the existing on-site structure (constructed in 1941), the

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
			presence of lead-based paint (LBP) and asbestos-containing materials (ACMs) is considered likely. As a result, construction workers and the public could be exposed. Further, the potential exists that construction activities may release potential contaminants that may be present in building materials (e.g., mold, lead, etc.). Federal and State regulations govern the renovation and demolition of structures where ACMs and LBPs are present. All demolition that could result in the release of ACM or LBPs must be conducted according to Federal and State standards, including but not limited to, California Health and Safety Code Sections 17920.10 and 105256. The National Emission Standards for Hazardous Air Pollutants mandates that building owners conduct an asbestos survey to determine the presence of ACMs prior to the commencement of any remedial work, including demolition (Mitigation Measure HAZ-3). If ACM material is found, abatement of asbestos would be required prior to any demolition activities. If paint is separated from building materials (chemically or physically) during demolition of structures, the paint waste would be required to be evaluated independently from the building material by a qualified Environmental Professional (Mitigation Measure HAZ-4). If LBP is found, abatement would be required to be completed by a qualified Lead Specialist prior to any demolition activities. The Project would be required to comply with Mitigation Measures HAZ-3 and HAZ-4, as well as SCAQMD Rule 1403, regarding the potential for LBP and ACMs.
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402		X	This Project will have No Effect on listed species due to the nature of the activities involved in the Project. The Project site is in an urban area and is surrounded by existing development. Vegetation in the area consists of landscaping and ornamental trees. The Project site is not located within any mapped critical habitat. Based on review of the existing and surrounding conditions, no candidate, sensitive, or special status plant or wildlife species occur on the Project site or adjacent properties. This Project is in compliance with the Endangered Species Act.

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
			The California Department of Fish and Wildlife's National Diversity Database (CNDDB) indicates that there are a select few endangered species within the South Gate Quad Map, which contains surrounding lands outside of City limits. However, the Southern California Association of Governments (SCAG) City of South Gate Local Profile, *Known Sightings of Endangered, Threatened, and Rare Plant and Animal Species in City of South Gate* map indicates that no endangered, threatened, or rate plans and animals are found within City limits, including the Project site. The two northern parcels of the Project site are currently vacant and contain asphalt in disrepair, and the southern parcel is developed with a building and asphalt, and does not support a livable habitat for the endangered species present in the South Gate Quad. The Project would not impact any potential endangered species or habitat because no habitat is present on the developed site that would support endangered species. Therefore, there is no effect to endangered species.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C		X	The Project proposes residential development and is not a hazardous facility. The Los Angeles County Fire Department, as the County's Unified Program Agency (CUPA), administers the Aboveground Petroleum Storage Tank Program and reports to the California Environmental Reporting System. The CalEPA Regulated Site Portal combines data about environmentally regulated facilities and sites throughout California into a single, searchable database and interactive map. Reviewing the CalEPA Regulated Site Portal, there are four sites identified under the Aboveground Petroleum Storage program within one mile of the Project site: the South Gate City Hall, located at 8650 California Avenue, is approximately 0.8 miles northeast from the Project site; Jiffy Lube #358, located at 9901 State Street, is approximately 0.7 miles southeast of the Project site; Sun-Lite Metals, located at 2210 E 85th Street, is approximately 0.9 miles northwest of the Project site; and SA Recycling LLC, located at 10313 S Alameda Street, is approximately 0.9 miles southwest of the Project site. Based on a calculation of the Acceptable Separation Distance (ASD) of the largest capacity container

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
			closest to the Project site, the Project site is located beyond the required separation distance from all covered tanks.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658		X	This Project does not include any activities that could potentially convert agricultural land to a non-agricultural use. The City of South Gate does not contain any mapped Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. The two northern parcels of the Project site are currently vacant and contain asphalt in disrepair, and the southern parcel is developed with an auto repair shop and asphalt, and does not contain agricultural land. Further, the Project site is zoned UN (Urban Neighborhood) and is not zoned for agricultural use. Therefore, there would be no effect to agricultural land.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55		X	The Federal Emergency Management Agency (FEMA) maps and rates flood hazard zones throughout the United States. These zones are depicted on a Flood Insurance Rate Map (FIRM), designated by Community Map and Panel numbers. Flood hazard areas identified on the Flood Insurance Rate Map are identified as a Special Flood Hazard Area (SFHA). The Project site is approximately 16 miles east of the Pacific Ocean, approximately 2.7 miles west of the Los Angeles River, and there are no large bodies of standing water near the Project site. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Flood Map #06037C1805F, effective on 09/26/2008), the Project site is located within an area of minimal flood hazard. The Project site is located within Zone X, areas determined to be outside the 0.2% annual chance floodplain. This Project does not occur in a floodplain. The project is in compliance with Executive Order 11988.
Historic Preservation National Historic Preservation Act of 1966, particularly	X		As discussed in Section 6.5, *Cultural Resources*, a Cultural Resource Assessment was prepared for the Project site, which included an assessment of the potential for historical and archaeological resources to be located within the Project site and for implementation of the proposed Project

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
sections 106 and 110; 36 CFR Part 800			to have an effect on these resources. The Project site is primarily undeveloped; one structure, Vallarta Tires shop is located within the site. Due to the age of the on-site structure, constructed in 1941, the commercial building was documented and evaluated as a potential historic resource under the National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) eligibility criteria and the City of South Gate Landmark eligibility criteria. The Cultural Resource Assessment concluded that the property does not meet the NRHP, CRHR, or local eligibility criteria as a historic built environment resource. Due to the lack of available freshwater sources in the vicinity and the absence of known prehistoric archaeological sites in the immediate area, the Cultural Resource Assessment determined the sensitivity of the Project site for containing intact buried prehistoric archaeological resources is considered low. Furthermore, an examination of historic topographic maps and aerial images indicates that the APE has largely been developed throughout the twentieth century, with many buildings being demolished and new buildings erected in their place. Although the existing building at 9019 Long Beach Boulevard appears to be unmodified, the other two parcels at 9001 Long Beach Boulevard and 9015 Long Beach Boulevard have undergone construction and demolition since the historic period. Due to the intensive development of the APE during the historic period, the potential to encounter buried historic period archaeological resources during Project construction is relatively low. In the event of accidental discovery of archaeological resources, Mitigation Measure CUL-1 would require work in the area to be halted and a qualified archaeologist be contacted to immediately evaluate the find. The Project is consistent with the National Historic Preservation Act.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities	X		As discussed in Section 6.13, *Noise*, Project construction and operation would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the General

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
Act of 1978; 24 CFR Part 51 Subpart B			Plan, Noise Ordinance, or applicable standards of other agencies. The nearest railroad to the Project site is approximately 1,600 feet north of the Project site. The closest airports are the Compton/Woodley Airport, located approximately 4.5 miles southwest of the Project site; the Hawthorne Municipal Airport (Jack Northrop Field), located approximately 6.5 miles southwest of the Project site; the Los Angeles International Airport, located approximately 9.1 miles west of the Project site; and the Long Beach Airport, located approximately 9.4 miles south of the Project site. The Project site is not located within the airport influence area or noise contours for an airport. The Project site is located adjacent to Long Beach Boulevard, a major roadway within the City. Existing ambient noise levels at the proposed Project location range from 63-69 dBA during peak traffic times. These levels extend into the "normally unacceptable" noise levels under 24 CFR 51.105(a), but are within the "conditionally acceptable" category for multifamily residential uses identified in the land use compatibility guidelines published by the State Department of Health Services. Conventional construction, with closed windows and fresh air supply systems or air conditions will normally suffice to meet noise reduction requirements. In order to meet the City's interior 45 dBA CNEL standard a "windows closed" condition is required and windows and sliding glass doors facing Long Beach Boulevard with a Sount Transmission Class (STC) rating of 29 are required. Specifically, all windows and sliding glass doors on the façade facing Long Beach Boulevard would be required to have an STC rating of 29 or higher for all floors and all other windows and sliding glass doors would be required to have an STC rating of 25 or higher on all floors (Condition of Approval N-1). The Project complies with the Noise Control Act.

COMPLIANCE FACTORS: Statutes, Executive Orders and Regulations Listed at 24 CFR §58.5 and §58.6	ARE FORMAL COMPLIANCE STEPS OR MITIGATION REQUIRED?		COMPLIANCE DOCUMENTATIONS
	YES	NO	
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149		X	The Project is not located on a sole source aquifer area, as indicated on the Sole Source Aquifers Interactive Map[2]. The project complies with Sole Source Aquifer requirements
Wetlands Protection Executive Order 11990, particularly sections 2 and 5		X	As indicated in the City General Plan, there are no riparian habitats or wetlands within the City, including this Project site. Further, SCAG's City of South Gate Local Profile, *Endangered Species/Plants in City of South Gate* and *Sensitive Habitat Areas in City of South Gate* maps indicate that no endangered plants or animals are found within City limits, including the Project site; and the Project site and vicinity do not contain sensitive habitat areas. The Project includes new construction as defined in Executive Order 11990, expansion of a building's footprint and ground disturbance. However, the new construction and other ground disturbance activities would not impact an on- or off-site wetlands, as there are none in proximity to the site. The project is in compliance with Executive Order 11990.
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)		X	This project is not within proximity of a National Wild and Scenic Rivers System (NWSRS) river. The project is in compliance with the Wild and Scenic Rivers Act.

[2] USEPA, *Map of Sole Source Aquifer Locations*, available at https://www.epa.gov/dwssa/map-sole-source-aquifer-locations, accessed November 25, 2025.

4.0 ENVIRONMENTAL ASSESSMENT CHECKLIST [24 CFR 58.40; REF. 40 CFR 1508.8 &1508.27]

Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features, and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable, and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Appendix I, *Environmental Assessment Reference Documents*, has been included at the end of this document to provide reference sources used to evaluate impact levels among environmental assessment factors.

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

(1) Minor beneficial impact

(2) No impact anticipated

(3) Minor Adverse Impact – May require mitigation

(4) Significant or potentially significant impact requiring avoidance or modification, which may require an Environmental Impact Statement

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The Project site is surrounded by a mix of industrial, residential, and commercial land uses: hotel and residential uses to the north, hotel and commercial uses to the east, commercial and residential uses to the south, and residential uses to the west. According to the South Gate General Plan 2035 Corridor Map, the Project site is located within the Long Beach Corridor Sub-Area 3. In the Long Beach Corridor Sub-Area 3, Neighborhood Medium-High, Boulevard Medium-High, and Open Space uses are strongly encouraged. Permitted density (excluding any density bonuses) for the land use is 21 to 40 dwelling units per acre with a maximum of four stories. The City of South Gate Zoning Map identifies the zoning for the site as UN (Urban Neighborhood). The UN zone is intended for areas adjacent to or surrounding major community corridors to provide retail and service uses in a more automotive-oriented setting and to provide buildings that transition to adjacent

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		established neighborhoods. The General Plan Community Design Element illustrates that the Project site is surrounded by Neighborhood Low, Neighborhood Medium, and Commercial land uses. The Project proposes a residential community comprised of 14 two- and three-story attached townhomes in four buildings and associated amenities, which are permitted uses within the UN zone. The proposed Project is consistent with the General Plan land use designation regulations, including the Housing Element, and the Zoning Map. The Project is compatible with the surrounding commercial and residential land uses as the Project proposes residential uses.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	The City of South Gate, including the Project site, is part of the lower Los Angeles River Drainage Basin. The Los Angeles Basin area is typically characterized by alluvium and associated deposits, which mainly belong to the Lakewood Formation of Recent or Pleistocene age; this alluvium is typically characterized by sedimentary deposits ranging in grain size from sand to silt and clay.[3] The aquifers located in the immediate area consist predominantly of fluvial sand and gravel, and have a combined thickness of about 200 feet.[4] The Project site is located on a relatively flat site at an elevation of approximately 115 feet above mean sea level. The Project site is underlain by Quaternary aged alluvium. According to the Department of Conservation, the Project site is mapped within a liquefaction zone but is not in an area subject to the Alquist-Priolo Earthquake Zoning Act.[5] The Project site is located in an urbanized area of very high runoff potential according to the US Web Soils Survey.[6] The Project site currently contains both pervious and impervious surfaces. The two northern vacant parcels are a mix of impervious and pervious surfaces, while the southern parcel is currently paved and developed with an auto repair shop creating an impervious surface. The Project would be primarily impervious surfaces with pervious

[3] ACS Associates, *Phase I Environmental Assessment Report for 9019 Long Beach Boulevard*, May 17, 2007
[4] Ibid.
[5] Department of Conservation, *DOC Maps: Geologic Hazards*, available at https://maps.conservation.ca.gov/geologichazards/, accessed December 9, 2022.
[6] USDA, *Web Soils Survey, Soil Map*, available at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx , accessed December 19, 2022.

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		surfaces provided around the site as landscaping. As the site would remain largely impervious, stormwater runoff is not anticipated to change substantially in the proposed condition. However, the Project proposes construction activities that could result in increased opportunities for erosion and runoff. To mitigate potential construction erosion and runoff impacts, the Project would be required to comply with all applicable regulations in the most recent California Building Code (CBC) as amended by the South Gate Municipal Code (Chapter 9.02, *Building Code)*, which includes design requirements to mitigate the effects of potential hazards associated with erosion and stormwater runoff. Further, the Project would adhere to Municipal Code Chapter 6.67, *Storm Drains*, which contains parameters regarding Best Management Practices (BMPs) and Low Impact Development (LID) plans. The Project proposes that an on-site stormwater capture system (dry well system) would be placed under the driveway behind the units. The system would meet LID requirements and would discharge to Long Beach Boulevard. All runoff from the site would be tributary to the proposed onsite dry well system.
Hazards and Nuisances including Site Safety and Noise	3	The Project is not located near any hazardous operations and the Project would not create a risk of explosion, release of hazardous substances, or other dangers to public health. The Project site is located adjacent to existing residential and commercial/retail uses. The Project will provide a safe place for residents. The Project site lies within the Peninsular Ranges Geologic Province of California which includes numerous active faults identified by the California Geological Survey (CGS) under the Alquist-Priolo Earthquake Fault Zoning Act.[7] CGS defines an active fault as one that has ruptured during the Holocene Epoch (i.e., the last 11,000 years). Based on the California Department of Conservation, the Project site is not in an area subject to the Alquist-Priolo Earthquake Zoning Act; is not within an Earthquake Fault Zone; is within a Liquefaction Zone and; is not within a Landslide Zone.[8] To mitigate potential impacts due to seismic activity and/or liquefaction, the Project would be required to comply with all applicable regulations in the

[7] Rincon Consultants, Inc., *Draft Phase I Environmental Site Assessment (ESA) 9001 and 9015 Long Beach Boulevard*, 2017.

[8] Department of Conservation, *Geologic Hazards Data & Maps*, available at https://maps.conservation.ca.gov/geologichazards/ , accessed December 16, 2022.

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		most recent California Building Code (CBC) as amended by the South Gate Municipal Code (Chapter 9.02, *Building Code)*, which includes design requirements to mitigate the effects of potential hazards associated with seismic activity and/or liquefaction. As discussed above under Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2) and Section 6.9, *Hazards and Hazardous Materials*, lead concentrations are elevated at levels above the screening levels for residential properties in shallow soils in 4 of the 22 soil sampling locations at the Project site; detections of thallium in eight of the 18 soil samples analyzed were present at levels exceeding the residential screening levels; and the area of TPHo exceeding soil screening criteria appears to have been delineated and is limited to one location on the site at a depth of 0.5 feet bgs. An Equitable Community Revitalization Grant (ECRG) through the Department of Toxic Substance Control (DTSC) has been awarded to assist with funding environmental cleanup activities at the Project site to allow for potential residential development. Remediation activities are occurring under DTSC oversight. As part of the agreement, a Removal Action Workplan (RAW) will be prepared for approval by DTSC identifying the onsite contamination, goals to be achieved by the removal action, recommended alternative, Sampling and Analysis Plan and Health and Safety Plan to be followed during the remedial excavation and transportation activities (Mitigation Measure HAZ-1). Removal, transportation, and disposal of impacted soil will be performed in accordance with applicable federal, State, and local laws, regulations, and ordinances. Excavation of contaminated material will involve the removal of non-hazardous waste soil, non-RCRA, and potentially RCRA waste soil requiring disposal at both a class III and class I landfill, respectively. Onsite excavation activities will be monitored and samples will be collected to determine the limits of excavation and ensure successful removal of contaminated soils under DTSC oversight. Contaminated soil will be disposed of at a disposal facility. The findings of the remedial excavation will be presented in a remedial action completion report that includes soil sample data tables and figures confirming completion of remediation activities for approval by DTSC (Mitigation Measure HAZ-2). Remediation of on-site soils would provide for improved conditions at the site. Project construction and operation would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		established in the General Plan, Noise Ordinance, or applicable standards of other agencies. The Project site is located adjacent to Long Beach Boulevard, potentially exposing future on-site residences to higher levels of noise. As discussed above under Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B and Section 6.13, *Noise*, existing ambient noise levels at the proposed Project location range from 63-69 dBA during peak traffic times. These levels extend into the "normally unacceptable" noise levels under 24 CFR 51.105(a), but are within the "conditionally acceptable" category for multifamily residential uses identified in the land use compatibility guidelines published by the State Department of Health Services. Conventional construction, with closed windows and fresh air supply systems or air conditions will normally suffice to meet noise reduction requirements. In order to meet the City's interior 45 dBA CNEL standard a "windows closed" condition is required and windows and sliding glass doors facing Long Beach Boulevard with an STC rating of 29 are required. Specifically, all windows and sliding glass doors on the façade facing Long Beach Boulevard would be required to have an STC rating of 29 or higher for all floors and all other windows and sliding glass doors would be required to have an STC rating of 25 or higher on all floors.
Energy Consumption	2	Construction would adhere to the California Building Code (Municipal Code Chapter 9.02, *Building Code*), the State of California Energy Code, California Code of Regulations, Title 24, Part 6 (Municipal Code Chapter 9.06, *Energy Code*), and the State of California Energy Code, California Code of Regulations, Title 24, Part 11 (Municipal Code Chapter 9.08, *Green Buildings Standards Code*). All proposed appliances, water heaters, and HVAC systems for the Project will be electric; gas service will not be provided for the development.
SOCIOECONOMIC		
Employment and Income Patterns	2	The Project proposes the construction of a common interest subdivision and affordable housing development of 14 two- and three-story attached townhomes in four buildings. All 14 townhomes will be sold to qualified low income homebuyers at an affordable housing cost.

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		The unemployment rate within California is 6.4 percent (2023), while the national average is 5.2 percent (2023)[9]. As of 2023, the unemployment rate in the City is 6.9 percent[10]. According to the City of South Gate 2021-2029 Housing Element, approximately 29 percent of households within the City are very low-income, 22 percent are low income, 20 percent are moderate income, and 29 percent are above moderate income. The Project is an affordable residential development project and would not affect employment or income.
Demographic Character Changes, Displacement	1	The Project would facilitate the development of 14 affordable housing units, which has been identified as a need in the City, where a high percentage of residents are considered housing burdened. According to the SCAG 6th Cycle Final RHNA Allocation Plan, the City of South Gate needs at least 8,282 units of housing to meet its projected housing needs for families of all income levels. At least 2,136 of these units must be affordable to very-low-income households and 994 must be affordable to low-income households. Based on an average annual population change from 2011 to 2020, the City is expected to have an annual growth of 0.04 percent; the City is built out and can expect minor changes in population into the future.[11] As of 2025, the City's population was 92,955. There are no residential uses currently on the Project site; therefore, displacement of existing residents would not occur. The Project would provide new affordable housing units in an area identified as having a need for additional affordable housing opportunities. Therefore, the Project would have a minor beneficial impact on the community as it forwards affordable housing policies through the provision of new affordable housing units for low income households. No significant change to the demographic character of the neighborhood is expected because the Project is intended to serve the existing population.
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	The Project site is located in the Los Angeles Unified School District (LAUSD). Willow Elementary is located east of the Project site, across Willow Place. The closest middle school is Southeast Middle,

[9] US Census Bureau, *S2301 Employment Status,* available at https://data.census.gov/table/ACSST5Y2023.S2301?q=California+unemployment&g=010XX00US_160XX00US0673080&moe=false, accessed November 25, 2025.
[10] Ibid.
[11] SA Associates, *2020 City of South Gate Urban Water Management Plan*, June 2021.

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		located approximately 0.7 miles south of the site. Students would attend South Gate Senior High, approximately 0.6 miles east of the site. LAUSD has confirmed there is adequate capacity among LAUSD facilities. In addition to LAUSD facilities, the Project site is served by Westbrook Academy, a K-12 charter school located approximately 0.6 miles northwest of the Project site; and the Southeast Campus of the East Los Angeles College (ELAC), located approximately 0.4 miles northwest of the Project site. While the Project is a residential project, it is not expected to create substantial additional demand for schools or impact capacity as the Project is anticipated to generate less than five students according to LAUSD generation rates, and therefore would not lead to the overburdening of educational facilities. There are several religious centers in the area; Iglesia Bautista Fundamental Hispana is less than a quarter mile east of the site, and First Foursquare Church and Templo Bethel are approximately a quarter mile south of the site.
Commercial Facilities	1	In proximity to the Project site, retailers include local restaurants; liquor stores; hotels, motels, and inns; retail shops; and gas stations. The Azteca Market is adjacent to the Project site, directly across Long Beach Boulevard. Azteca Market is a deli, bakery, convenience, corner grocery store. El Super #27, a large-scale grocery store, is located approximately 0.75 miles east of the site. There are numerous convenient stores, gas stations, and restaurants, located along Long Beach Boulevard and Firestone Boulevard. There are also numerous auto-related shops along Long Beach Boulevard between Firestone Boulevard (less than a quarter mile north of Project site) to Independence Avenue (less than half a mile north of Project site). Because the Project site is in a mixed-use area, residential support uses, such as grocery stores, could easily be accessed via public transportation, walking, or bicycling. A laundromat is located approximately a quarter mile south of the site, on Long Beach Boulevard. The Project would not displace existing commercial facilities beyond the relocation of the existing auto repair shop, nor would it affect commercial facilities by its operation. The additional residents would not constitute a significant impact on the demand for commercial facilities in the area, due to the existing residential uses in the area.

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
Health Care and Social Services	2	There are no hospitals in the City of South Gate. The St. Francis Medical Center (SFMC) in Lynwood is the nearest hospital to the Project site, located approximately two miles south. SFMC serves the healthcare needs of the communities of Southeast Los Angeles. SFMC is a 354-bed acute care hospital and one of the largest emergency and Level II trauma centers in Los Angeles County, treating more than 80,000 emergencies and 2,000 trauma injuries a year.[12] In addition, the Bell Gardens Health Center, Downey Regional Medical Center, and AltaMed Health Services in Pico Rivera serve South Gate residents. There are no significant impacts to healthcare facilities anticipated because of the proposed Project and residents would be adequately served by existing health care facilities. The Peoples Immigration Resource Center has an office located approximately 0.2 miles south of the Project site. The Peoples Immigration Resource Center focuses on immigration law, and aims to help people gain national citizenship. The nearest dental office is State Dental Center on Firestone Boulevard, approximately 0.4 miles northeast of the site. The Project does not represent a significant change to the demographics of the area or on area social services as it serves the existing population. Implementation of the Project represents a less than significant impact to social services.
Solid Waste Disposal / Recycling	2	The City of South Gate contracts with Universal Waste Systems, which offers a wide range of solid waste and recycling services. The site and adjacent area are already served with solid waste disposal services. Due to the nature of the Project, an incremental increase in solid waste demand would be generated, but not to a level that would exceed the capacity of or reduce the capability of services in the City of South Gate. Impacts are considered less than significant.
Waste Water / Sanitary Sewers	2	The City's sanitary sewer collection system is managed by the City's Public Works Department. Los Angeles County Sanitation District (LACSD). The LACSD treats an average of 260 gallons of wastewater per day. Approximately 99 percent of flows from local sewers discharge into the County Sanitation Districts' (LACSD's) facilities for transportation, treatment, and disposal. LACSD conveys sewage from South Gate and other communities to the A.K. Warren Water Resource Facility in Carson. Following treatment, the water is discharged through a network of outfalls extending one and a half

[12] St. Francis Medical Center, *About Us*, available at https://stfrancismedicalcenter.com/about-us/, accessed December 13, 2022.

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		miles off the Palos Verdes Peninsula at a depth of approximately 200 feet. The City's sanitary sewer collection system is managed by the City's Public Works Department. The Project proposes to connect all individual units' water and sewer to existing laterals in Willow Place and Long Beach Boulevard. A project-specific wastewater study is required to be prepared and submitted to the Public Works Department for review and approval. The Project would be required to comply with the approved study. Therefore, adequate wastewater conveyance and treatment would be available to serve the Project.
Water Supply	2	The City receives its water from two main sources, groundwater from the Central Groundwater Basin (Basin) and recycled water from Central Basin Municipal Water District (CBMWD). Water and sewer for the proposed individual units will connect to existing laterals in Willow Place and Long Beach Boulevard. The total water demand for the City service area was over 8,500 acre-feet (AF) of potable water in 2020. In 2020, the City had a per capita water use of 88.8 gallons per capita per day (GPCD); the City is below their SBX7-7 2015 interim target (101 GPCD) and achieved its 2020 final water use target (100 GPCD). The South Gate 2020 Urban Water Management Plan (UWMP) confirms that water supplies would meet the service area's water demands for normal, single-dry, and multiple dry-year conditions through 2045 (refer to Tables 3.13 through 3.19 of the UWMP). UWMP water demand forecasts are based on adopted General Plan land use designations. As the UWMP has indicated that South Gate Water will have sufficient supplies through 2045, and the proposed Project is consistent with the General Plan growth assumptions, the Project would not create insufficient water supply, impacts would be less than significant.
Public Safety- Police, Fire and Emergency Medical	2	The City contracts with the Los Angeles County Fire Department (LACoFD) to provide fire protection and emergency medical services to the City. The closest fire station to the Project site is Fire Station 54, located approximately 2.2 miles east of the site. Fire Station 54, located at 4867 Southern Avenue, is staffed at all times by one captain, one engineer, one firefighter, and three paramedics. The South Gate Police Department provides police protection services in the City of South Gate. The nearest facility is the Police Department headquarters, located approximately 1.0 mile east of the Project site. The Project site is in an urban area that is currently served by municipal providers.

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		As the Project is within the designated use of the General Plan, LACoFD has accounted for and anticipated potential Project impacts. The introduction of residential uses to the Project site would incrementally increase the demand for fire protection and emergency medical services to the site. However, the forecast population growth associated with the Project represents a less than one percent increase in population over existing conditions and is within the growth projections anticipated by the City's General Plan. Additionally, the southern parcel of the Project site is developed with an auto repair shop that the LACoFD currently provides service to as needed. Therefore, the population increase associated with the Project would not significantly impact the need for fire protection services. The introduction of residential uses to the Project site would incrementally increase the demand for police protection services to the site. However, the forecast population growth associated with the Project represents a less than one percent increase in population over existing conditions and is within the growth projections anticipated by the City's General Plan. Additionally, the southern parcel of the Project site is developed with an auto repair shop that the Police Department currently provides service to as needed. Therefore, the population increase associated with the Project would not significantly impact the need for police protection services. According to the General Plan, the City does not currently have a development or public safety impact fee to fund additional police services necessitated by growth. Therefore, the Project could not offset any deficiencies in police protection services if needed. However, as the Project is within the growth projections anticipated by the City's General Plan, the Project would not require the need for new or physically altered police facilities in order to maintain acceptable service ratios, response times or other performance objectives and impacts would be less than significant.
Parks, Open Space and Recreation	3	There are nine parks in the City that total 165.74 acres. As the City is built-out and surrounded by highly urbanized areas, there are not many opportunities to increase park and recreation space. The closest open space area to the Project site is the recreational greenbelt, approximately 0.2 miles south of the Project site. This greenbelt runs along the length of Southern Avenue, from Calden Avenue to Atlantic Avenue. Throughout the greenbelt, there are children's play areas with various playground equipment, picnic tables, pedestrian pathways, street lights, and restrooms. The

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		South Gate Civic Center includes City Hall, Police Department, City Hall Annex and Civic Center Community Building which includes the Museum and Art Association.
Transportation and Accessibility	2	Willow Place and Long Beach Boulevard provide access to the Project site. Wide, consecutive, paved sidewalks run along Willow Place and Long Beach Boulevard. Intersections surrounding the Project site (along Long Beach Boulevard, Firestone Avenue, and Southern Avenue) all have pedestrian crosswalks. Consolidation of driveways from four to two would reduce the interruptions and improve the pedestrian experience along the Project frontage. The Project would also provide landscaping along the Project frontage. While there are no bicycle facilities adjacent to the Project site, the Project would include onsite bike parking. GATE and LA Metro are public transportation services that serve the City and surrounding area. The nearest "Get Around Town Express" (GATE) stops are Stops R and S. Stop R is located at Southern Avenue and Madison Avenue, approximately 0.5 miles southeast of the Project site; and Stop S is located at Southern Avenue and Stanford Avenue, approximately 0.2 miles south of the Project site. LA Metro Route 60 operates between the Cities of Compton and Downtown Los Angeles. There are two LA Metro Route 60 bus stops approximately 0.1 miles from the Project site in both the north and south direction along Long Beach Boulevard; they are located at the Southern Avenue and Long Beach Boulevard intersection. Pedestrian, bicycle, and transit facilities are expected to adequately serve the Project. Project impacts to transportation and accessibility are considered less than significant.
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	No unique natural features, or water resources, occur on the Project site or within the surrounding area. The two northern parcels of the Project site contain asphalt in disrepair from a former parking lot and dirt, while the southern parcel (also developed with asphalt) is currently occupied by an auto repair shop. The closest water resource near the Project site is the Los Angeles River, approximately 3.0 miles east. The property does not include important farmland or other ''Farmland of Statewide or Local Importance'' as identified as the California Department of Conservation.
Vegetation, Wildlife	2	The two northern parcels of the Project site contain asphalt in disrepair from a former parking lot and dirt, while the southern

ENVIRONMENTAL ASSESSMENT FACTOR	IMPACT CODE	IMPACT EVALUATION
		parcel (also developed with asphalt) is currently occupied by an auto repair shop. The chance of wildlife in the Project boundaries is low due to the lack of vegetation in the area. There are two street trees located along the Project frontage (Long Beach Boulevard). The Project site is located within a highly urbanized area.
Other Factors	1	The Project will facilitate the development of 14 affordable homeownership units, which is greatly needed in the City of South Gate, where a high percentage of residents are considered housing burdened. The Project will increase overall housing supply and will provide homeownership opportunities to low and very-low-income families in our community, helping the City meet its RHNA needs. According to the SCAG 6th Cycle Final RHNA Allocation Plan, the City of South Gate needs at least 8,282 units of housing to meet its projected housing needs for families of all income levels. At least 2,136 of these units must be affordable to very-low-income households and 994 must be affordable to low-income households.

Cumulative Impact Analysis:

The Project would not result in a cumulative adverse impact associated with the following issues: Airport Hazards, Coastal Barrier Resources, Flood Insurance, Coastal Zone Management, Endangered Species, Explosive and Flammable Hazards, Farmlands Protection, Floodplain Management, Historic Preservation, Sole Source Aquifers, Wetlands Protection Wild and Scenic Rivers, Socioeconomic, Community Facilities and Services, and Natural Features.

The Project's construction-related emissions by themselves would not exceed the significance thresholds for criteria pollutants. Since these thresholds indicate whether individual Project emissions have the potential to affect cumulative regional air quality, it can be expected that the Project-related construction emissions would not have a cumulative construction-related air quality impact. Operational thresholds of significance have been developed based on the level above which individual project emissions would result in a cumulatively considerable contribution to the air basin's existing air quality conditions. The Project's operational emissions would not exceed thresholds. As a result, the Project's operational emissions would not result in a cumulative air quality impact.

On-site soil remediation activities would occur as a result of Project implementation due to elevated lead concentrations, thallium and TPHo above residential screening levels at the Project site. These existing conditions are associated with existing and historic uses of the site and do not extend to groundwater or other sites within the area. On-site remediation activities will be required to ensure removal of contaminated soil in order to allow for development of the site with proposed residential uses. On-site remediation will have a beneficial impact and will not result in a cumulative impact on the environment.

The Project would not impact a historic built environment resource. Further, the sensitivity of the Project site for containing intact buried prehistoric archaeological resources is considered low. In the event of accidental discovery of archaeological resources, mitigation would require work in the area to be halted

and a qualified archaeologist to evaluate the find. The Project would not result in a cumulative impact on the environment associated with historic resources.

Project construction activities would result in temporary increases in noise levels at the Project site and immediate area. Construction activities would be required to comply with the City's Noise Ordinance, which limits the hours of construction. Additionally, conditions of approval would ensure construction equipment is equipped with noise attenuating devices and would also require orientation of stationary construction equipment away from nearby sensitive receptors, among other requirements. Project operation would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the General Plan, Noise Ordinance, or applicable standards of other agencies and would not result in a cumulative noise impact on the environment. The Project would be required to comply with City Noise Ordinance and would be required to comply with noise mitigation measures regarding the design of the building.

Alternatives:

Identify below other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Include the benefits and adverse impacts to the environment of each alternative, and the reasons (e.g., economic, engineering, or others) for rejecting it.

Modified Site Plan Alternative: Under the Modified Site Plan Alternative, the Project site would be developed with 14 affordable townhomes, similar to the proposed Project. However, the Project would also include non-residential uses, including a small ground floor commercial space and community programming. Access to the site would be limited to one driveway located on Long Beach Boulevard. The Modified Site Plan Alternative would have similar environmental impacts to the Project. This Alternative was not selected due to economic and site constraints; potential safety impacts due to inadequate site access; increased vehicular traffic; and reduced open space.

Alternative Site: Development of the proposed affordable housing project at an alternative site has not been identified or considered since the property is owned by the City Housing Authority. The City is built out and there is limited opportunity to develop the proposed Project at a different location. Therefore, additional sites were not evaluated for consideration of this type of affordable housing development.

No Action Alternative: Under the No-Action Alternative, the northern parcels of the Project site would remain vacant and the southern parcel would remain an inactive auto repair shop. Under this alternative, the proposed affordable housing project would not occur, and therefore would not contribute toward the City meeting its fair share of affordable housing. The auto repair shop may continue to remain vacant and soil conditions may not be remediated in the near future or not remediated to the higher residential standard. The parcels could be developed separately or as a larger development consistent with the General Plan Neighborhood Medium-High designation, which allows for duplexes, triplexes, fourplexes; townhomes and rowhouses; multi-family; parks, plazas, and open space; education; cultural; public assembly, and civic and institutional with permitted densities (excluding any density bonuses) of 21 to 40 dwelling units per acre with a maximum of four stories. Development consistent with the General Plan could result in similar or slightly greater impacts when compared to the proposed Project depending upon the development.

Additional Studies Performed:

- MAT Engineering Inc*., Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening, City of South Gate,* California, February 10, 2026.
- MD Acoustics, *Habitat for Humanity IS/EA Noise Impact Study*, December 20, 2022.
- PaleoWest, *Cultural Resource Assessment for the 9001-9019 Long Beach Blvd Housing Project, South Gate, Los Angeles County, California*, January 24, 2023.
- PaleoWest, *Geology and Paleontology Background of the 9001-9019 Long Beach Blvd Project, Los Angeles County, California*, January 24, 2023.
- Rincon Consultants, Inc., *Draft Phase I Environmental Site Assessment (ESA) 9001 and 9015 Long Beach Boulevard*, 2017.
- Rincon Consultants, Inc., *Phase II Environmental Site Assessment, 9001, 9015 and 9019 Long Beach Boulevard, South Gate*, California, June 21, 2019.
- Rincon Consultants, Inc., *Additional Phase II Environmental Site Assessment 9019 Long Beach Boulevard, South Gate, California*, January 28, 2020.

Field Inspection (Date and completed by):

Field Inspection was conducted on November 17, 2022, by De Novo Senior Planner, Ashley Brodkin.

List of Sources, Agencies and Persons Consulted: Refer to Section 7.0, *References* and Section 8.0, *Report Preparation Personnel*

List of Permits Obtained: The City of South Gate, as the Lead Agency, has discretionary authority over the proposed Project. The Project would be subject to various City permits and approvals, including, but not limited to:

- Environmental Assessment (EA);
- Final Mitigated Negative Declaration (MND);
- Tentative Tract Map No 84210 to create a subdivision for the sale of individual units; and
- Administrative Modifications (Major) PL NO. PL26-0191 for four Administrative Modifications to: (1) reduce the required parking setback from 10 feet to zero feet; (2) reduce the required building setback from 10 feet to 5 feet for Unit 10; (3) increase the fence height along the street frontages from 3 feet to 3½ feet; and (4) increase the fence height along the southwest corner of Long Beach Boulevard and Willow Place.

The Project would also require administrative approvals from the City, including, but not limited to grading, building, and occupancy permits.

Public Outreach [24 CFR 50.23]**:**

Provide your FONSI/FOSI notice dissemination list. Also, describe any additional public meetings and hearings that were held as part of or were relevant to the environmental review.

The IS/MND/EA will be made available for a 30-day public review. A Notice of Intent and Finding of No Significant Impact (FONSI) will be published in the newspaper and posted to the City's website. Information about where the public can access the IS/MND/EA and supporting documentation will be included in the notice.

Summary of Findings and Conclusions:

- The Project would be compatible with existing and future land uses in the vicinity of the Project site.
- The Project would provide affordable housing in the City of South Gate where affordable housing options are in high demand.
- The Project would comply with all statutory regulations pertaining to environmental issues. Environmental issues identified as having a potential adverse effect on the environment would be reduced through the implementation of standard conditions of approval and mitigation measures, as provided below.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Mitigation Measures

CUL-1 If previously unidentified cultural resources are encountered during ground-disturbing activities, work within 100 feet of the find shall cease and the Director of Community Development shall be notified and a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology, shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP) eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the Project, additional work such as data recovery excavation may be warranted to mitigate any significant impacts. In the event an identified cultural resource is Native American in origin, the qualified archaeologist shall consult with the Project owner and the Director of Community Development, or designee, to implement Native American consultation procedures. Construction shall not resume in the area until appropriate protection and preservation measures are in place and have been approved by the Director of Community Development, or designee, and the qualified archaeologist states in writing that the proposed construction activities would not significantly damage any archaeological resources.

GEO-1: If fossils or fossil bearing deposits are encountered during ground-disturbing activities, work within a 25-foot radius of the find shall halt and a professional vertebrate paleontologist (as defined by the Society for Vertebrate Paleontology) shall be contacted immediately to evaluate the find. The paleontologist shall have the authority to stop or divert construction, as necessary. Documentation and treatment of the discovery shall occur in accordance with Society of Vertebrate Paleontology standards. The significance of the find shall be evaluated pursuant to the State CEQA Guidelines. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the paleontologist.

HAZ-1 Prior to issuance of permits for demolition and grading, the Project Applicant shall submit a Removal Action Workplan (RAW) and Soils Management Plan (SMP), or similar documentation, approved by the Department of Toxic Substances Control to the City of South Gate Community Development Department. Issuance of permits for demolition and grading by the City shall be limited to soil excavation and remediation activities in accordance with the Removal Action Workplan (RAW) and Soils Management Plan (SMP) or similar documentation, as approved by the Department of Toxic Substances Control.

HAZ-2 Upon completion of remediation activities and prior to issuance of permits for additional grading beyond what may be required for soil excavation or remediation activities in accordance with Department of Toxic Substances Control requirements, the Project Applicant shall submit a Remedial Action Completion Report, or similar documentation, approved by the Department of Toxic Substances Control, demonstrating completion of on-site remediation activities that would allow for development of the site with residential uses to the City of South Gate Community Development Department.

HAZ-3 Prior to demolition activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and California Division of Occupational Safety and Health (Cal/OSHA) certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). The sampling method to be used shall be based on the statistical probability that construction materials similar in color and texture contain similar amounts of asbestos. In areas where the material appears to be homogeneous in color and texture over a wide area, bulk samples shall be collected at discrete locations from within these areas. In unique or nonhomogeneous areas, discrete samples of potential ACMs shall be collected. The survey shall identify the likelihood that asbestos is present in concentrations greater than 1 percent in construction materials. If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard.

Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403. Common asbestos abatement techniques involve removal, encapsulation, or enclosure. The removal of asbestos is preferred when the material is in poor physical condition and there is sufficient space for the removal technique. The encapsulation of asbestos is preferred when the material has sufficient resistance to ripping, has a hard or sealed surface, or is difficult to reach. The enclosure of asbestos is to be applied when the material is in perfect physical condition, or if the material cannot be removed from the site for reasons of protection against fire, heat, or noise.

HAZ-4 If paint is separated from building materials (chemically or physically) during demolition of the structure, the paint waste shall be evaluated independently from the building material by a qualified Environmental Professional. A portable, field X-ray fluorescence (XRF) analyzer shall be used to identify the locations of potential lead paint, and test accessible painted surfaces. The qualified Environmental Professional shall identify the likelihood that lead is present in concentrations greater than 1.0 milligrams per square centimeter (mg/cm^2) in/on readily accessible painted surfaces of the buildings.

If lead-based paint is found, abatement shall be completed by a qualified Lead Specialist prior to any activities that would create lead dust or fume hazard. Potential methods to reduce lead dust and waste during removal include wet scraping, wet planning, use of electric heat guns, chemical

stripping, and use of local High Efficiency Particulate Air (HEPA) exhaust systems. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Engineer.

TCR-1 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.

On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural, and/or historic purposes.

TCR-2 Unanticipated Discovery of Human Remains and Associated Funerary Objects. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.

Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).

Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).)

Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

TCR-3 Procedures for Burials and Funerary Remains. As the Most Likely Descendant (“MLD”), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term “human remains” encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.

If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.

The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.

In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.

In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.

Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically, and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains

Conditions of Approval

COA N-1: Prior to approval of grading plans and/or prior to issuance of demolition, grading, and building permits, the following noise reduction techniques shall be included in the construction plans or specifications:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices.
- The Project Applicant shall demonstrate to the satisfaction of the City's Building Official that construction noise reduction methods shall be used where feasible, including shutting off idling equipment.
- Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.
- During construction, equipment staging areas shall be located such that the greatest distance is between the staging area noise sources and noise-sensitive receptors.
- Per the South Gate General Plan Noise Element, construction activities shall not occur during the hours of 7:00 PM to 8:00 AM Monday through Saturday and on Sundays and Federal holidays.

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]

The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.

Preparer Signature: Starla Barker Date: August 12, 2026

Name/Title/Organization: Starla Barker, AICP, Principal Planner, De Novo Planning Group

Certifying Officer Signature: Date: August 12, 2026

Name/Title: Rob Houston, City Manager

5.0 CEQA ENVIRONMENTAL CHECKLIST FORM

Background

1. Project Title: 9001-19 Long Beach Boulevard Habitat for Humanity Project
2. Lead Agency Name and Address: City of South Gate 8650 California Ave South Gate, CA, 90280
3. Contact Person and Address: Joshua Valdez, Associate Planner 8650 California Avenue South Gate, CA, 90280 jvaldez@sogate.org 323-563-9514
4. Project Location: 9001-19 Long Beach Boulevard, South Gate (APNs 6204-025-900, -901, and -092)
5. Project Sponsor's Name and Address: Habitat for Humanity of Greater Los Angeles 8739 Artesia Boulevard Bellflower, CA 90706
6. General Plan Designation: Long Beach Corridor Sub-Area 3
7. Zoning: UN (Urban Neighborhood)
8. Description of the Proposed Project: See Section 2.3.
9. Surrounding Land Uses and Setting: See Section 2.2.
10. Other public agencies whose approval is required: Los Angeles County Sanitation District; Los Angeles County Regional Water Quality Control Board; Los Angeles County Fire Department; Department of Toxic Substance Control.
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? In compliance with AB 52, the City distributed letters to applicable Native American tribes informing them of the Project on November 22, 2022. One California Native American tribe, the Gabrieleno Band of Mission Indians – Kizh Nation, requested consultation. Mitigation measures have been agreed upon and consultation has concluded; refer to Response 6.18.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" or "Less Than Significant With Mitigation Incorporated" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources		Air Quality
	Biological Resources	X	Cultural Resources		Energy
X	Geology and Soils		Greenhouse Gasses	X	Hazards and Hazardous Materials
	Hydrology and Water Quality		Land Use and Planning		Mineral Resources
	Noise		Population and Housing		Public Services
	Recreation		Transportation	X	Tribal Cultural Resources
	Utilities and Service Systems		Wildfire	X	Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

CITY OF SOUTH GATE

Joshua Valdez, Associate Planner for
John Signo, AICP, Planning Manager,
City of South Gate | Community Development

June 15, 2026
Date

Evaluation of Environmental Impacts

The environmental analysis in this section is patterned after CEQA Guidelines Appendix G. An explanation is provided for all responses with the exception of “No Impact” responses, which are supported by the cited information sources. The responses consider the whole action involved, including on- and off-site project level and cumulative, indirect and direct, and short-term construction and long-term operational impacts. The evaluation of potential impacts also identifies the significance criteria or threshold, if any, used to evaluate each impact question. If applicable, mitigation measures are identified to avoid or reduce the impact to less than significant. There are four possible responses to each question:

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.

- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.

- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.

- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the project.

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6.0 CEQA ENVIRONMENTAL ANALYSIS

6.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Have a substantial adverse effect on a scenic vista?				X
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				X
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Pursuant to SB 743 (PRC Section 21099(d)(1)), "[a]esthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." PRC Section 21099(a) defines a "transit priority area" as an area within 0.5 mile of a major transit stop. PRC Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods."

The proposed Project would be a residential project located on an infill site within a transit priority area that meets the criteria set forth in Section 21099(d)(1). The Project site is considered an infill site because the Project area is highly urbanized and the site contains asphalt in disrepair from a former parking lot and dirt, while the southern parcel (also developed with asphalt) is currently occupied by an auto repair shop. The Project is within a transit priority area as mapped by the Southern California Association of

Governments (SCAG)[13]. As the proposed Project is a residential project on an infill site within a transit priority area, aesthetic impacts of the Project cannot be considered significant, pursuant to PRC Section 21099(d). The analysis of aesthetic impacts below is presented for disclosure purposes.

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

No Impact. The South Gate General Plan does not identify any scenic vistas or scenic resources within the City. The Project site is located within the Long Beach Corridor Sub-Area 3. Corridors are the major transportation thoroughfares and access routes in the City. In the Long Beach Corridor Sub-Area 3, Neighborhood Medium-High, Boulevard Medium-High, and Open Space uses are strongly encouraged. The Project site and surrounding area are relatively flat and due to the topography and intervening structures associated with urbanization of the area, there are no expansive views or scenic vistas. The Project would not have a substantial adverse effect on a scenic vista.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The Project area is developed and does not contain any scenic resources. There are no State or County designated scenic highways in the area.[14] Additionally, the South Gate General Plan does not identify any scenic highways within the City. The Project would not substantially damage scenic resources within a State scenic highway.

Mitigation Measures: No mitigation measures are required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. The Project site is located within an urbanized area. The two northern parcels of the Project site contain asphalt in disrepair from a former parking lot and dirt, while the southern parcel (also developed with asphalt) is currently occupied by an auto repair shop. The Project site is surrounded by a mix of industrial, open space, and commercial land uses: hotel and residential uses to the north, hotel and commercial uses to the east, commercial and residential uses to the south, and residential uses to the west. The Project proposes to remove all existing on-site improvements and structures within the site and construct a common interest subdivision and affordable housing development. The Project proposes to construct 14 two- and three-story attached townhomes in four buildings. Each building will have a

[13] Southern California Association of Governments (SCAG), *High Quality Transit Corridors*, *https://maps.scag.ca.gov/portal/apps/experiencebuilder/experience/?id=97f9699f14654b3b8895c74846541f75&page=Main-Map*, accessed November 25, 2025.

[14] California Department of Transportation, Scenic Highway System Lists, *List of Eligible and Officially Designated State Scenic Highways* and *List of Officially Designated County Scenic Highways*, https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways , accessed November 25, 2025.

maximum height of 33 feet, two inches. The General Plan identifies the Project site as Long Beach Corridor Sub-Area 3, and the Zoning Map zones the area as UN (Urban Neighborhood); the proposed Project is consistent with the City General Plan and the Zoning Map.

The City of South Gate has adopted zoning regulations under Municipal Code Title 11, *Zoning*. The Project would be required to comply with Municipal Code Section 11.25.070, *Residential operating standards*, which regulates setbacks, parking, screening requirements, noise, lighting, and signs within residential areas. Additionally, the Project would be subject to the requirements of Municipal Code Section 11.25.080, *Multifamily development standards*, which addresses development for all attached units or condominiums, conversion of apartments to condominiums, and structural/architectural alterations to such developments. Section 11.25.080 establishes standards for lot design, architectural compatibility, landscaping, building height, easements, access, and parking for multifamily homes.

As part of the City's site plan review and approval process required under South Gate Municipal Code Section 11.51.050, *Administrative permits and approvals*, the Project site plan would be reviewed and only approved after finding the proposed development, including the uses and the physical design of the development is consistent with the intent and general purposes of the General Plan and provisions of the South Gate Municipal Code. Although the South Gate Municipal Code does not identify specific regulations governing scenic quality, the review process would ensure the physical design of the proposed Project is consistent and compatible with the site and surrounding area. Thus, the Project would not conflict with applicable zoning and other regulations governing scenic quality.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The Project site and surrounding area currently experience lighting typical of an urbanized area, such as building interior and exterior lighting, parking lot security lighting, and street lighting along Long Beach Boulevard. The Project would introduce similar types of lighting including interior building lighting and exterior lighting associated with building illumination, landscape lighting, parking lot lighting, and security lighting. The Project proposes to remove all existing on-site improvements and structures within the site and construct a common interest subdivision and affordable housing development with 14 two- and three-story attached townhomes in four buildings.

The Project would be required to comply with Municipal Code Section 11.25.070, *Residential operating standards*, which requires that all lighting of the building, landscaping, parking area, and similar facilities shall be hooded and directed to reflect away from adjoining properties. Further, as part of the City's site plan review and approval process required under Municipal Code Section 11.51.050, *Administrative permits and approvals*, the Project site plan would be reviewed and only approved after finding the proposed development, including the uses and the physical design of the development is consistent with the intent and general purposes of the General Plan and provisions of the South Gate Municipal Code. This Municipal Code Section analyzes the proposed types and location of exterior lighting, when determining potential Project approval.

The Project does not propose the use of highly reflective materials or significant expanses of glass that could result in adverse impacts associated with daytime glare. Thus, the Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Mitigation Measures: No mitigation measures are required.

6.2 Agriculture and Forestry Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)), timberland (as defined in Public Resources Code section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
e Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

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

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

No Impact. The City of South Gate does not contain any mapped Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program.[15] Further, the Project site is zoned UN (Urban Neighborhood) and is not zoned

[15] California Department of Conservation, *California Important Farmland Finder*, https://maps.conservation.ca.gov/agriculture/, accessed November 25, 2025.

for agricultural use, nor is the site under a Williamson Act contract. Thus, the Project would not involve the conversion of farmland to a non-agricultural use or conflict with existing zoning for agricultural use or a Williamson Act contact.

Mitigation Measures: No mitigation measures are required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As stated in Response 6.2 (a, b), the Project site is zoned UN (Urban Neighborhood). No forest land, timberland, or timberland zoned Timberland Production occurs within the City. The Project site is located within an urbanized area. The two northern parcels of the Project site contain asphalt in disrepair from a former parking lot and dirt, while the southern parcel (also developed with asphalt) is currently occupied by an auto repair shop. Thus, the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Refer to Responses 6.2(a) through 6.2(d), above.

Mitigation Measures: No mitigation measures are required.

6.3 Air Quality

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			X	
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c. Expose sensitive receptors to substantial pollutant concentrations?			X	
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

South Coast Air Quality Management District (SCAQMD) Thresholds

Mass Emissions Thresholds

The SCAQMD significance criteria may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if a proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during project construction and operations, as shown in Table 6.3-1, *South Coast Air Quality Management District Emissions Thresholds*.

Table 6.3-1
South Coast Air Quality Management District Emissions Thresholds

Criteria Air Pollutants and Precursors (Regional)	Construction-Related	Operational-Related
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO_x)	100	55
Sulfur Oxides (SO_x)	150	150
Coarse Particulates (PM_{10})	150	150
Fine Particulates ($PM_{2.5}$)	55	55
Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993 ($PM_{2.5}$ threshold adopted June 1, 2007).		

Localized Carbon Monoxide

In addition to the daily thresholds listed above, the proposed Project would be subject to the ambient air quality standards. These are addressed through an analysis of localized Carbon Monoxide (CO) impacts. The California 1-hour and 8-hour CO standards are:

- 1-hour = 20 parts per million (ppm)
- 8-hour = 9 ppm

The significance of localized impacts depends on whether ambient CO levels near a project site exceed State and federal CO standards. The South Coast Air Basin (SCAB) has been designated as attainment under the 1-hour and 8-hour standards.

Localized Significance Thresholds

In addition to the CO hotspot analysis, the SCAQMD developed Local Significance Thresholds (LSTs) for emissions of Nitrogen Oxide (NOx), CO, Coarse Particulate Matter (PM_{10}), and Fine Particulate Matter ($PM_{2.5}$) generated at new development sites (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions that can be generated at a project site without expecting to cause or substantially contribute to an exceedance of the most stringent national or State ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that disturb 5.0 acres or less on a single day. The City of South Gate is located within SCAQMD SRA 12 (South Central LA County). Table 6.3-2, *Local Significance Thresholds (Construction/Operations)*, shows the LSTs for a 1.0-acre, 2.0-acre, and 5.0-acre project site in SRA 12 with sensitive receptors located within 25 meters of the Project site.

Table 6.3-2
Local Significance Thresholds (Construction/Operations)

Project Size	Nitrogen Oxide (NOx) – lbs/day	Carbon Monoxide (CO) – lbs/day	Coarse Particulates (PM_{10}) – lbs/day	Fine Particulates ($PM_{2.5}$) – lbs/day
1.0 acres	46/46	231/231	4/1	3/1
2.0 acres	65/65	346/346	7/2	4/1
5.0 acres	98/98	630/630	13/4	7/2

Source: South Coast Air Quality Management District, *Localized Significance Threshold Methodology – Appendix C*, revised October 21, 2009.

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

Less Than Significant Impact. As part of its enforcement responsibilities, the United States Environmental Protection Agency (USEPA) requires that each state with nonattainment areas prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the California Clean Air Act (CCAA) requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the federal and State ambient air

quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project site is located within SCAB, which is under SCAQMD's jurisdiction. The SCAQMD is required, pursuant to the Federal Clean Air Act (FCAA), to reduce emissions of criteria pollutants for which SCAB is in non-attainment. To reduce such emissions, the SCAQMD drafted the 2022 Air Quality Management Plan (AQMP). The 2022 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State (California) and national air quality standards. The 2022 AQMP is a regional and multi-agency effort including the SCAQMD, the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the USEPA. The AQMP's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2022 RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The proposed Project is subject to the SCAQMD's AQMP.

Criteria for determining consistency with the AQMP are defined by the following indicators:

- **Consistency Criterion No. 1**: A proposed project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of the AQMP's air quality standards or the interim emissions reductions.

- **Consistency Criterion No. 2**: A proposed project would not exceed the AQMP's assumptions or increments based on the years of the project build-out phase.

Consistency Criterion No. 1 refers to the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). As shown in Tables 6.3-3 and 6.3-4, the proposed Project construction and operational emissions would be below SCAQMD's thresholds. As the Project would not generate localized construction or regional construction or operational emissions that would exceed SCAQMD thresholds of significance, the Project would not violate any air quality standards. Thus, no impact is expected, and the Project would be consistent with the first criterion.

Consistency Criterion No. 2 refers to SCAG's growth forecasts and associated assumptions included in the AQMP. The future air quality levels projected in the AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, projects that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

With respect to determining consistency with Consistency Criterion No. 2, it is important to recognize that air quality planning within the air basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2022 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2022 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

1. *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

Growth projections included in the 2022 AQMP form the basis for the projections of air pollutant emissions and are based on the General Plan land use designations and SCAG's 2020-2045 Regional Transportation Plan/Sustainability Communities Strategy (2020-2045 RTP/SCS) demographics forecasts. The population, housing, and employment forecasts within the 2020-2045 RTP/SCS are based on local general plans as well as input from local governments, such as the City of South Gate. The SCAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the 2022 AQMP.

As discussed in Section 6.14, *Population and Housing*, the Project involves the development of 14 townhome units, which would induce direct population growth in the City. Based on 3.64 persons per household, which is the average household size for the City of South Gate, the Project's forecast population growth is approximately 51 persons.[16] The Project's forecast population growth would increase the City's existing population by less than one percent (approximately 0.05 percent) to 93,006 persons. Thus, the Project would be within the population projections anticipated and planned for by the City's General Plan and would not increase growth beyond the AQMP's projections.

Would the project implement all feasible air quality mitigation measures?

The proposed Project would result in less than significant air quality impacts. Compliance with all required emission reduction measures identified by the SCAQMD would be required as identified in Responses (b) and (c). As such, the proposed Project meets this 2022 AQMP consistency criterion.

2. *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

Land use planning strategies set forth in the 2022 AQMP are primarily based on the 2020-2045 RTP/SCS. As discussed in Section 6.8, *Greenhouse Gas Emissions*, the Project would be consistent with the actions and strategies of the 2020-2045 RTP/SCS. For example, the Project would be consistent with the 2020-2045 RTP/SCS goal that focuses on providing more options for short trips through Neighborhood Mobility Area and Complete Communities by incorporating walking paths within and immediately adjacent to the Project site, and by placing residential land uses within walking distance (0.25-mile) of retail and restaurants. Additionally, the Project would be located near public transit, thereby supporting the 2020-2045 RTP/SCS goal of focusing new growth around transit.

In conclusion, the determination of 2022 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the air basin. The proposed Project would not result in a long-term impact on the region's ability to meet State and federal air quality standards. Further, the proposed Project's long-term influence on air quality in the air basin would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2022 AQMP. Therefore, the Project would be consistent with the above criteria and impacts would be less than significant.

[16] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2025*, Sacramento, California, May 2025.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact.

Construction Emissions

Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project site include ozone-precursor pollutants (i.e., Reactive Organic Gases [ROG] and NOx) and PM_{10} and $PM_{2.5}$. Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if Project related pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from demolition, site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

The Project's construction-related emissions were calculated using the CARB-approved California Emissions Estimator Model (CalEEMod) computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. As discussed in Section 6.9, Hazards and Hazardous Materials, the Project site contains contaminated material that would require removal from the site. Onsite excavation activities would be monitored and samples would be collected to determine the limits of excavation and ensure successful removal of contaminated soils under DTSC oversight. Contaminated soil would be disposed of at a disposal facility. As noted in Section 2.0, Description of the Proposed Project, it is anticipated that up to 100 cubic yards of contaminated soil will require disposal. However, for purposes of this analysis, export of up to 357 cubic yards of fill, import of 357 cubic yards of replacement fill, and 200 cubic yards of additional fill material, which includes the anticipated volume of contaminated soil, have been evaluated to provide a conservative analysis of potential soil export and import quantities, including a daily truck trip estimate of 38 one-way truck trips per day for a duration of three days.

For purposes of the modeling, proposed Project demolition, site preparation, and grading are anticipated to begin in mid-2026 and building construction was estimated to be completed in early 2028. The CalEEMod modeling output is included in Appendix A, Air Quality/Energy/Greenhouse Gas Emissions Data, for additional information regarding the construction assumptions used in this analysis.

The Project's predicted maximum daily construction-related emissions are summarized in Table 6.3-3, *Construction-Related Emissions (Maximum Pounds Per Day)*. As shown in Table 4.6-3, all criteria pollutant emissions would remain below their respective thresholds. Additionally, Project construction activities would be subject to compliance with SCAQMD Rules 402, 403, 1113, and 1466, which would further reduce specific construction-related emissions.

Table 6.3-3
Construction-Related Emissions (Maximum Pounds Per Day)

Construction Year	Reactive Organic Gases (ROG)	Nitrogen Oxides (NOx)	Carbon Monoxide (CO)	Sulfur Oxides (SOx)	Coarse Particulates (PM10)	Fine Particulates (PM2.5)
2026	1	9	10	<1	2	1
2027	<1	5	8	<1	<1	<1
2028	11	<1	1	<1	<1	<1
Maximum	**11**	**9**	**10**	**<1**	**2**	**1**
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**	**150**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2022.1

Notes: SCAQMD Rule 403 Fugitive Dust was not applied for the purposes of modeling; therefore, these numerical results reflect a conservative modeling of Project construction emissions. It should be noted that the Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages are from the SCAQMD CEQA Handbook (Tables XI-A through XI-E). No mitigation was applied to construction equipment; refer to Appendix A for model outputs.

SCAQMD Rule 402 is designed to protect the community's comfort, health, and property by prohibiting discharge of air contaminants or other material that could cause discomfort, irritation, or annoyance to a significant number of people or the general public; endanger the comfort, peace, health, or safety of the community; or damage, or has the potential to damage, local businesses or personal property. SCAQMD Rule 403 reduces the amount of particulate matter during construction activities through three primary mechanisms: preventing dust from becoming airborne, containing it within the project boundaries, and halting work when weather conditions make dust control impossible. SCAQMD Rule 1113 addresses VOCs through the regulation of paints, stains, varnishes, sealers, and primers applied to stationary structures. SCAQMD Rule 1466 specifically applies to earth-moving activities of soil with applicable toxic air contaminants (TACs). Implementation of Rule 1466 minimizes the amount of off-site fugitive dust emissions containing TACs by reducing particulate emissions in the ambient air as a result of earth-moving activities, including, dredging, excavating, grading, earth-cutting and filling, loading, unloading, handling, mechanized land clearing, treating, stockpiling, transferring, and removing of soil that contains applicable toxic air contaminants. Requirements include notification, PM_{10} monitoring, dust control measures, on-site supervision and training, recordkeeping, and on-site signage.

Implementation of these rules would further reduce construction-related air quality emissions. Additionally, compliance with Rules 403 and 1466 would also reduce potential air quality impacts associated with the disturbance of on-site contaminated soils to less than significant.

As the proposed Project emissions would not worsen ambient air quality, create additional violations of federal and State standards, or delay SCAB's goal for meeting attainment standards, and potential impacts associated with disturbance of contaminated soil would be reduced through compliance with SCAQMD Rules 403 and 1466, the Project-related construction impacts would be less than significant.

Operational Emissions

The Project's operational emissions would be associated with motor vehicle use and area sources. Area sources include gasoline-powered landscaping and maintenance equipment, and consumer products (such as household cleaners). Mobile sources emissions are generated from vehicle operations associated with Project operations. Typically, area sources are small sources that contribute very minor emissions individually, but when combined may generate substantial amounts of pollutants. Area specific defaults in CalEEMod were used to calculate area source emissions.

CalEEMod was also used to calculate pollutants emissions from vehicular trips generated from the proposed Project. The vehicle trip rate for the Project was obtained from the "Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening, City of South Gate, California" prepared by MAT Engineering; refer to Appendix G. CalEEMod default inputs for vehicle mix and trip distances were used. CalEEMod estimated emissions from Project operations are summarized in Table 6.3-4, *Operational-Related Emissions (Maximum Pounds Per Day)*. As shown in Table 6.3-4, emission calculations generated from CalEEMod demonstrate that Project operations would not exceed the SCAQMD thresholds for any criteria air pollutants. Therefore, Project operational impacts would be less than significant.

Table 6.3-4
Operational-Related Emissions (Maximum Pounds Per Day)

Source	Reactive Organic Gases (ROG)	Nitrogen Oxides (NOx)	Carbon Monoxide (CO)	Sulfur Oxides (SOx)	Coarse Particulates (PM10)	Fine Particulates (PM2.5)
Mobile	<1	<1	2	<1	<1	<1
Area	<1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Water	<1	<1	<1	<1	<1	<1
Waste	<1	<1	<1	<1	<1	<1
Refrigeration	<1	<1	<1	<1	<1	<1
Total	**1**	**<1**	**3**	**<1**	**<1**	**<1**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Source: CalEEMod version 2022.1; refer to Appendix A for model outputs.						

Cumulative Short-Term Emissions

SCAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. As discussed above, the Project's construction-related emissions by themselves would not exceed the SCAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether individual Project emissions have the potential to affect cumulative regional air quality, it can be expected that the Project-related construction emissions would not be cumulatively considerable. The SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. The analysis assumes

that fugitive dust controls would be utilized during construction, including frequent water applications. SCAQMD rules, mandates, and compliance with adopted AQMP emissions control measures would also be imposed on construction projects throughout the SCAB, which would include related cumulative projects. As concluded above, the Project's construction-related impacts would be less than significant. Compliance with SCAQMD rules and regulations would further minimize the proposed Project's construction-related emissions. Therefore, Project-related construction emissions, in combination with those from other projects in the area, would not substantially deteriorate the local air quality. The Project's construction-related emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Impacts

The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to SCAB's existing air quality conditions. Therefore, a project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in Table 6.3-4, the Project's operational emissions would not exceed SCAQMD thresholds. As a result, the Project's operational emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Project operations would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact.

Localized Construction Significance Analysis

The nearest sensitive receptors to the Project site are the single- and multi-family residences located immediately west and south of the Project site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific emissions.

The maximum daily disturbed acreage would be 0.66 acres (the gross area of the Project site). The appropriate SRA for the LSTs is the SCAQMD SRA 12 (South Central LA County), since SRA 12 includes the Project site. LSTs apply to CO, NOx, PM_{10}, and $PM_{2.5}$. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5.0 acres. As stated, Project construction is anticipated to disturb a maximum of 0.66 acres in a single day.

The SCAQMD's methodology states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, as recommended by the SCAQMD, LSTs for receptors located at 25 meters were utilized in this analysis for receptors closer than 25 meters. Table 6.3-5, *Localized Significance of Construction Emissions (Maximum Pounds per Day)*, presents the results of localized emissions during proposed Project construction.

As shown in Table 6.3-5, the emissions of these pollutants on the peak day of Project construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Further, the Project would be subject to compliance with SCAQMD Rules 402, 403, and 1113, which would further reduce specific construction-related emissions. Therefore, the proposed Project would result in a less than significant impact concerning LSTs during construction activities.

Table 6.3-5
Localized Significance of Construction Emissions (Maximum Pounds per Day)[1]

Construction Activity	Nitrogen Oxides (NOx)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
Demolition (2026)	4	6	0.2	0.1
Site Preparation (2026)	4	6	0.3	0.2
Grading (2026)	9	10	1.8	1.1
Building Construction (2027)	5	7	0.2	0.2
Building Construction (2028)	5	7	0.2	0.2
Paving (2028)	4	5	0.2	0.2
Architectural Coating (2028)	4	6	0.2	0.1
SCAQMD Localized Screening Thresholds (1 acres at 25 meters)	46	231	4	3
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
Source: CalEEMod Version 2022.1; refer to Appendix A for model outputs.				
Notes: 1. Emissions reflect on-site construction emissions only, per SCAQMD guidance.				

As previously discussed, the Project site contains contaminated soil that would be disturbed during Project construction activities. This disturbance could result in the contaminants becoming airborne and potentially impacting nearby sensitive receptors. In addition to SCAQMD Rules 402, 403, and 1113, Project construction activities would be subject to compliance with SCAQMD Rule 1466. Rule 1466 specifically addresses earth-moving activities of soil with TACs. Requirements include notification, PM_{10} monitoring, dust control measures, on-site supervision and training, recordkeeping, and on-site signage to minimize the amount of off-site fugitive dust emissions. Compliance with SCAQMD rules and regulations would reduce the potential exposure of sensitive receptors associated with disturbance of contaminated soil. Impacts would be less than significant in this regard.

Localized Operational Significance Analysis

The on-site operational emissions are compared to the LST thresholds in Table 6.3-6, *Localized Significance of Operational Emissions (Maximum Pounds per Day)*. Table 6.3-6 shows that the maximum daily emissions of these pollutants during Project operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the proposed Project would result in a less than significant impact concerning LSTs during operational activities.

Table 6.3-6
Localized Significance of Operational Emissions (Maximum Pounds per Day)

Emission Sources	Nitrogen Oxides (NOx)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
On-Site Emissions (Area Sources)	<0.1	0.8	<0.1	<0.1
SCAQMD Localized Screening Threshold (1 acres at 25 meters)	46	231	1	1
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
Source: CalEEMod version 2016.3.2; refer to Appendix A for model outputs.				

The Project would not involve the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants, and no significant toxic airborne emissions would result from operation of the proposed Project. Construction activities are subject to the regulations and laws relating to toxic air pollutants at the regional, State, and federal level that would protect sensitive receptors from substantial concentrations of these emissions. Therefore, impacts associated with the release of toxic air contaminants would be less than significant.

Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (Sierra Club v. County of Fresno [Friant Ranch, L.P.] [2018] 6 Cal.5th 502). The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme ozone nonattainment areas such as the SCAB) as emitting 10 tons per year. The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur.

NOx and ROG are precursor emissions that form ozone in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind

from the sources. Breathing ground-level ozone can result in health effects that include reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily ozone concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that ozone can make asthma symptoms worse and can increase sensitivity to asthma triggers.

According to the SCAQMD's 2022 AQMP, ozone, NOx, and ROG have been decreasing in the SCAB since 1975 and are projected to continue to decrease in the future. Although vehicle miles traveled (VMT) in the SCAB continue to increase, NOx and ROG levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NOx emissions from electric utilities have also decreased due to the use of cleaner fuels and renewable energy. In addition, since NOx emissions also lead to the formation of $PM_{2.5}$, the NOx reductions needed to meet the ozone standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of $PM_{2.5}$ standards.

The SCAQMD's air quality modeling demonstrates that NOx reductions prove to be much more effective in reducing ozone levels and will also lead to a significant decrease in $PM_{2.5}$ concentrations. NOx-emitting stationary sources regulated by the SCAQMD include Regional Clean Air Incentives Market (RECLAIM) facilities (e.g., refineries, power plants, etc.), natural gas combustion equipment (e.g., boilers, heaters, engines, burners, flares) and other combustion sources that burn wood or propane. The 2022 AQMP identifies robust NOx reductions from new regulations on RECLAIM facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest NOx emissions levels achievable but there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial furnaces, pool heaters, and backup power equipment. The AQMP plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

As previously discussed, Project emissions would be less than significant and would not exceed SCAQMD thresholds; refer to Table 6.3-3 and Table 6.3-4. Localized effects of on-site Project emissions on nearby receptors were also found to be less than significant; refer to Table 6.3-5 and Table 6.3-6. The LSTs represent the maximum emissions from a Project that are not expected to cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS. The LSTs were developed by the SCAQMD based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor. The ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect public health, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. As shown above, Project-related emissions would not exceed the regional thresholds or the LSTs, and therefore would not exceed the ambient air quality standards or cause an increase in the frequency or severity of existing violations of air quality standards. Therefore, sensitive receptors would not be exposed to criteria pollutant levels more than the health-based ambient air quality standards.

Carbon Monoxide Hotspots

An analysis of CO "hot spots" is needed to determine whether the change in the level of service of an intersection resulting from the proposed Project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The AQMP addressed CO concentrations. As part of the SCAQMD CO Hotspot Analysis, the Wilshire Boulevard/Veteran Avenue intersection, one of the most congested intersections in Southern California with approximately 100,000 average daily traffic (ADT), was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm Federal standard. The proposed Project would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's CO Hotspot Analysis. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection even as it accommodates 100,000 ADT, it can be reasonably inferred that CO hotspots would not be experienced at any Project area intersections from the 65 net ADT attributable to the proposed Project. Therefore, impacts would be less than significant.

Construction-Related Diesel Particulate Matter

Project construction would generate diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to toxic air contaminants (TAC) emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The closest sensitive receptors to the Project site are located immediately to the west and south. The use of diesel-powered construction equipment would be temporary and episodic and occur throughout the Project site. The duration of exposure would be short and exhaust from construction equipment would dissipate rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The majority of construction equipment that emit diesel exhaust would occur during the demolition, site preparation, and grading phases which are estimated to occur for approximately two months.

California Office of Environmental Health Hazard Assessment has not identified short-term health effects from diesel particulate matter (DPM). Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction activities would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by Project construction activities, in and of itself, would not expose sensitive receptors to substantial amounts of air toxins and the proposed Project would result in a less than significant impact.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact.

Construction

Odors that could be generated by construction activities are required to follow SCAQMD Rule 402 to prevent odor nuisances on sensitive land uses. SCAQMD Rule 402, Nuisance, states:

A person shall not discharge from any source whatsoever such quantities of 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.

During construction, emissions from construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities may generate odors. However, these odors would be temporary, are not expected to result in a public nuisance which affects a substantial number of people since these emissions would disperse rapidly. Therefore, impacts related to odors associated with the Project's construction-related activities would be less than significant.

Operational

The SCAQMD CEQA Air Quality Handbook identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Project proposes development of residential uses, which would not involve the types of uses that would emit objectionable odors affecting substantial numbers of people. The Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, the proposed Project would not create objectionable odors and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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6.4 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

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

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

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The Project site is located within an urbanized area. The two northern parcels of the Project site contain asphalt in disrepair from a former parking lot and dirt, while the southern parcel (also developed with asphalt) is currently occupied by an auto repair shop. Street trees are located along the right-of-way of Long Beach Boulevard, along the eastern border of the Project site, and do not contain natural habitat. The surrounding area is developed and is comprised of a mix of industrial, residential, and commercial land uses: hotel and residential uses to the north, hotel and commercial uses to the east, commercial and residential uses to the south, and residential uses to the west. According to the Green Element of the City General Plan, plants and trees in the City are limited to parks, streetscaping, some riparian zones around the Los Angeles River and Rio Hondo Channel, and private yards and gardens; there are no known threatened or endangered species and very sparse wildlife. South Gate Park is located approximately 2.2 miles east of the site, and the Los Angeles River is located approximately three miles east. Based on review of the existing and surrounding conditions, no candidate, sensitive, or special status plant or wildlife species occur on the Project site or adjacent properties. Further, there are no riparian habitat or wetlands within the Project site and surrounding area. Therefore, the proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any special status plant or wildlife species, any riparian habitat or other sensitive natural community, or on any State or federally protected wetlands.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The two northern parcels of the Project site contain asphalt in disrepair from a former parking lot and dirt, while the southern parcel (also developed with asphalt) is currently occupied by an auto repair shop. The Project site is surrounded by a mix of industrial, residential, and commercial land uses: hotel and residential uses to the north, hotel and commercial uses to the east, commercial and residential uses to the south, and residential uses to the west. Long Beach Boulevard, a major arterial, borders the Project site to the north/northeast and Willow Place borders the Project site to the north. There are no open space areas, rivers, wildlife corridors, or wildlife nursery sites within the Project site or surrounding area; the proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Mitigation Measures: No mitigation measures are required.

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

***Less Than Significant Impact*.** South Gate Municipal Code Chapter 5.33, *Tree Preservation and Protection*, establishes requirements for the preservation and proper maintenance of existing trees located on public property. Municipal Code Section 5.33.060, *Tree protection during development and construction*, establishes activities that require a permit from the Director of Public Works prior to Project commencement, which includes construction occurring within the dripline of any public tree. Further, the City adopted the Street Tree Master Plan in November 2007. The goals included in the Street Tree Master Plan include increasing tree canopy, filling vacant planting sites, and reducing tree hazards. The Street Tree Master Plan encourages long-term planning to create a robust tree network that has a long lifespan.

If the Project would need to remove, replace, or move, the two existing street trees along Long Beach Boulevard, the Project would need to acquire a tree removal permit as required by City Municipal Code Chapter 5.33, *Tree Preservation and Protection.* All trees replaced, removed, or replanted as a result of Project implementation would adhere to the regulations established in the City Municipal Code. The proposed trees and landscaping, as well as the sidewalk would be in accordance with the City's requirements. Compliance with local policies, the Municipal Code, and the City Tree Master Plan, would ensure that the Project would not conflict with any local policies or ordinances protection biological resources. As such, impacts would be considered less than significant.

Mitigation Measures: No mitigation measures are required.

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

***No Impact*.** The Project site is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Thus, the Project would not conflict with any of these plans and no impact would occur.

Mitigation Measures: No mitigation measures are required.

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6.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?				X
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c. Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

This section is based on the *Cultural Resource Assessment for the 9001-9019 Long Beach Blvd Housing Project, South Gate, Los Angeles County, California* (Cultural Resource Assessment), prepared by PaleoWest, dated January 24, 2023, and included in its entirety as Appendix B, Cultural Resource Assessment.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Impact. A search of the California Historic Resources Information System (CHRIS) was performed at the South Central Coastal Information Center (SCCIC) that includes the Project site (also referred to as the Area of Potential Effects or APE) and a 0.5-mile radius. Results of the records search indicate that 11 previous cultural resources studies have been completed within 0.5-mile of the Project site; none of which included the Project site. Five cultural resources are recorded within 0.5-mile of the Project site; no resources have been documented within or adjacent to the Project site. The documented resources include a segment of the Union Pacific Railroad, which is unevaluated for listing in the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR). Two other resources are historic-period buildings built in the 1930s and 1940s that have been found ineligible for listing in the NRHP or CRHR, as well as locally, through survey evaluation. Another resource is a historic-period steel water tank that has also been found ineligible for listing in the NRHP or CRHR, as well as locally, through survey evaluation. The remaining resource is a historic period two-story commercial building, originally a restaurant that has been found eligible for listing in the CRHR.

In addition to the SCCIC records search, additional sources were consulted, including the NRHP, the Office of Historic Preservation Director of Properties in the Build Environment Resource Directory, Los Angeles County Assessor files, City of South Gate historical documents, historical newspapers databases, historic San born Fire Insurance Maps, and the Los Angeles Public Library databases. Review of historic-era maps and aerial photographs were also conducted.

For purposes of historic built environment resources, a survey of the Project site was conducted to identify and verify the location of all structures and buildings within the Project site that are 45 years in age or

older. Due to the age of the on-site structure, Vallarta Tires shop constructed in 1941, the commercial building was documented and evaluated as a potential historic resource.

According to the Cultural Resource Assessment, the existing building measures 651 square feet and appears to have functioned as a greasing, gasoline, and oil facility in 1950, numerous gas stations between 1950 and 1970, and then finally as an automotive repair shop from 1970 through present-day. The building is situated along the center of the northern boundary of the parcel, with the entrance located on the south side. The building is south-oriented toward Glenwood Place and is fronted by a surface parking lot where various tires are being stored, along with vehicles being serviced. An additional storage area houses parked vehicles along the western elevation of the building. The concrete block commercial building features a rectangular plan with a north-south orientation. The building is one story in height and a brick wall extends generally east-west from the north side of the building. Based on field observation of the property, the condition of the building appears to be largely consistent with its original structure.

The south elevation of the building features a flat roof, an overhanging eave framing the office entryway at the southwest corner of the building, and a sliding garage door opening to the interior of the garage workspace in the southeast corner of the building. Flood lights are positioned two at each corner of the top corners of the building. The exterior walls of the tire shop building are clad primarily with brick and painted over with pale yellow paint. Paint appears to have been repainted within the last decade or two. A review of historic aerials indicate the building has existed at this location since at least 1952.

The City of Los Angeles established a relevant context for automotive properties that can also be applied to 9019 Long Beach Boulevard in the City of South Gate. The Car and Car Services sub-theme of the historic context related to Commercial Development and the Automobile describes how resources included in the sub-theme are those designed to provide services for the automobile; show accommodation to, and celebration of, the automobile in their design through the use of features such as canopies, show windows, and wide passageways, all linking the building to the car; and contain spatial arrangements in their site layouts allowing for maneuvering of the automobile, which differentiates them from pedestrian-oriented commercial structures. The main elements of the gas/service stations common throughout the Los Angeles area between 1920 and 1970 demonstrate buildings with a design and layout that accommodates the needs of the automobile and prioritize access to the street.

Though the existing building mostly lacks architectural features, the building can be ascribed to the Industrial architectural style. Industrial architecture can be traced from the first industrial revolution in England (ca. 1760-1830), though modern industrial architecture remains greatly influenced by the second industrial revolution of the late nineteenth and early twentieth centuries and its reliance on steel and concrete construction. Industrial building architecture prioritizes functionality and worker safety over aesthetically pleasing design.

The Industrial Style is characterized by the following features:

- Wide-open spaces, with open floor plans and high ceilings
- Minimalist aesthetic, prioritizing functionality over ornament
- Exposed materials and utilities, including concrete floors, exposed ductwork, and utilities
- Natural light, through use of large metal-grid or floor-to-ceiling windows

NRHP and CRHR Eligibility Evaluation

The eligibility criteria for designating historic properties under federal and State criteria are essentially the same and are therefore evaluated together in the Cultural Resource Assessment, and provided below.

Under NRHP Criterion A or CRHR Criterion 1, the property at 9019 Long Beach Boulevard is not significant because it does not have strong associations with important historic events. The commercial building was constructed in 1941 along Long Beach Boulevard, roughly eleven years after Long Beach Boulevard and the surrounding street grid was completed. While it was among the first commercial buildings constructed along this segment of Long Beach Boulevard in South Gate, it did not serve as a catalyst for rapid commercial development.

Research did not reveal that anyone associated with the development and use of this property made demonstrably significant contributions to their field of occupation or history, therefore, this property is not eligible under NRHP Criterion B or CRHR Criterion 2.

The building on this property is not eligible under NRHP Criterion C or CRHR Criterion 3 because it does not possess distinctive characteristics of a type, period, or method of construction, is not the work of a master, and does not represent high artistic value. The building is of simple utilitarian Industrial design, ubiquitous throughout the region during much of the twentieth century.

This property is not eligible under NRHP Criterion D or CRHR Criterion 4 as a source (or likely source) of important information regarding history. The building on the property was also built using typical materials and does not have any likelihood of yielding important information about historic construction materials or technologies.

South Gate Landmark Eligibility Evaluation

The Cultural Resource Assessment evaluated the property under the ten Landmark criteria in South Gate Municipal Code, Chapter 7.68, *Preservation of Cultural Heritage*, as described below.

Criterion A: This property does not possess a significant character, interest, or value attributable to the development, heritage or cultural characteristics of the City of South Gate, the southern California region, the State of California, or the United States of America or if it is associated with a person whose life is historically significant.

This property does not exemplify or reflect special elements of the City of South Gate's social, aesthetic, engineering, architectural, or natural history. The property was initially developed in 1941 as a gasoline/service station, one of many in the region. The business operated as a greasing, gasoline, and oil facility in 1950, numerous gas stations between 1950 and 1970, and then finally as an automotive repair shop from 1970 through present-day. While the businesses in the commercial building served as a business dedicated to commercial development and the automobile, there is no indication that they exemplify or reflect special elements of the City of South Gate's history as it relates to the commercial development of the automobile. The commercial building was constructed in the utilitarian Industrial style and does not exemplify or reflect special elements of City of South Gate's, aesthetic, engineering, or architectural history. The built environment on this property does not contribute to the natural history of the City of South Gate.

Criterion B: This property is not the site of a historic event with a significant place in history.

This property is not associated with events that have made a significant contribution to the broad patterns of the City of South Gate or its regional history, or the cultural heritage of California or the United States. While the building was one of many that reflected the growing importance of the automobile in the development of the City of South Gate during the twentieth century, it does not serve as a unique or even strong reflection of that phenomenon.

Criterion C: This property does not exemplify the cultural, political, economic, social, or historical heritage of the community.

Research did not reveal information that related to the original owner or subsequent owners, or anyone else associated with the development and use of this property and thus this property does not appear to have played a significant role in the history of the City of South Gate, California, or national history.

Criterion D: This property does not portray the environment in an era of history characterized by a distinctive architectural style.

This property has not yielded, or does not have the potential to yield, information important to the prehistory or history of the City of South Gate, California, or the nation. The building on the property was built using typical materials and does not have any likelihood of yielding important information about historic construction materials or technologies.

Criterion E: This property does not embody those distinguishing characteristics of an architectural type or engineering specimen.

This property does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master or possesses high artistic values. The building is an unremarkable example of simple, utilitarian Industrial style. The building style is common throughout South Gate, California, and the nation. The building is not the work of a master designer and lacks high artistic values.

Criterion F: This property is not the work of a person or persons whose work has significantly influenced the development of the city or the southern California region.

Extensive research into the history of 9019 Long Beach Boulevard did not yield any information as to the previous owners of the property. Similarly, the previous Environmental Sensitivity Assessment prepared by Rincon Consultants on this property in 2016 likewise did not find any relevant information regarding original or subsequent ownership of the property.

Criterion G: This property does not contain elements of design, detail, materials, or craftsmanship which represent a significant innovation.

Criterion H: This property is not a part of or related to a distinctive area that is developed according to a specific historical, cultural, or architectural motif.

Criterion I: This property does not represent an established and similar visual feature of a neighborhood or community due to its unique location or specific distinguishing characteristics.

Criterion J: This property is not or has not been a valuable information source important to the prehistory or history of the City of South Gate, the southern California region, the State of California or the United States of America.

This property does not retain sufficient integrity. The potential period of importance for this property is based on the construction date of the building: 1941. The following elements of integrity have been assessed to make a determination regarding the building's integrity:

- *Location*: The subject property retains integrity of location. The property is sited on the original location it was constructed in its original orientation.
- *Design*: The subject property retains weak integrity of design because there is no obvious design to the building, and the building is a poor example of the Industrial Style.
- *Setting*: The subject property lacks integrity of setting. The neighborhood has undergone significant changes since the subject property was constructed and is an area of major current redevelopment.
- *Materials*: The subject property retains some integrity of materials; however, expedient additions and modifications with cheap materials inconsistent with original design have diminished that integrity.
- *Workmanship*: The subject property retains little integrity of workmanship.
- *Feeling*: The subject property lacks integrity of feeling. This narrow and simple building provides little that evokes a sense of World War II feeling in South Gate.
- *Association*: The subject property lacks integrity of association. The property has no important associations with events, people, or important patterns of development in the City.

Based on the above, the Cultural Resource Assessment concluded that the property does not have historical, architectural, community or aesthetic merit (i.e., does not meet eligibility Criteria A through J), does not display a National Register status code of 5 or above, and therefore is not eligible as a City of South Gate landmark.

As no historic or potentially historic built environment resources are located within the site, the Project would not cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5 and no impact would occur.

Mitigation Measures: No mitigation measures are required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact with Mitigation Incorporated. As stated above, results of the records search show that 11 previous studies had been completed within 0.5-mile of the Project area; none of which included the Project site. Five cultural resources are recorded within 0.5-mile of the Project site; no resources have been documented within or adjacent to the Project site. The documented resources include a segment of the Union Pacific Railroad, which is unevaluated for listing in the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR). Two other resources are historic-period buildings built in the 1930s and 1940s that have been found ineligible for listing in the NRHP or CRHR, as well as locally, through survey evaluation. Another resource is a historic-period steel water tank that has also been found ineligible for listing in the NRHP or CRHR, as well as locally, through survey evaluation. The remaining resource is a historic period two-story commercial building, originally a restaurant that has been found eligible for listing in the CRHR.

As part of the Cultural Resource Assessment, a Sacred Lands File (SLF) search was requested from the Native American Heritage Commission's (NAHC) on November 15, 2022. Negative SLF results were received from the NAHC on December 8, 2022. However, it is noted that under AB 52, the City received a request for consultation from the Gabrieleno Band of Mission Indians – Kizh Nation; refer to Section 6.18, *Tribal Cultural Resources*.

A PaleoWest Archaeologist conducted a pedestrian survey of the Project area (APE) on November 23, 2022. All exposed ground surface was examined for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-altered rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic period debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances, such as burrows, were visually inspected.

Results of the survey indicate the Project site has been subject to development and urbanization. The three parcels making up the APE consist of an existing commercial building at 9019 Long Beach Blvd (APN 6204-025-902), as well as two vacant parcels which are 90 percent paved at 9001 Long Beach Blvd and 9015 Long Beach Blvd. Visibility was excellent (95-100 percent) in unpaved portions of the northernmost parcel. No prehistoric or historic archaeological resources were identified in the APE during the survey.

Due to the lack of available freshwater sources in the vicinity and the absence of known prehistoric archaeological sites in the immediate area, the Cultural Resource Assessment determined the sensitivity of the Project site for containing intact buried prehistoric archaeological resources is considered low. Furthermore, an examination of historic topographic maps and aerial images indicates that the APE has largely been developed throughout the twentieth century, with many buildings being demolished and new buildings erected in their place. Although the existing building at 9019 Long Beach Boulevard appears to be unmodified, the other two parcels at 9001 Long Beach Boulevard and 9015 Long Beach Boulevard have undergone construction and demolition since the historic period. Due to the intensive development of the APE during the historic period, the potential to encounter buried historic period archaeological resources during Project construction is relatively low. In the event of accidental discovery of archaeological resources, Mitigation Measure CUL-1 would require work in the area to be halted and a qualified archaeologist be contacted to immediately evaluate the find. With implementation of CUL-1, the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5 and impacts would be less than significant.

Mitigation Measures:

CUL-1 If previously unidentified cultural resources are encountered during ground-disturbing activities, work within 100 feet of the find shall cease and the Director of Community Development shall be notified and a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology, shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP) eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the Project, additional work such as data recovery excavation may be warranted to mitigate any significant impacts. In the event an identified cultural resource is Native American in origin, the qualified archaeologist shall consult with the Project owner and the Director of Community Development, or designee, to implement Native American consultation

procedures. Construction shall not resume in the area until appropriate protection and preservation measures are in place and have been approved by the Director of Community Development, or designee, and the qualified archaeologist states in writing that the proposed construction activities would not significantly damage any archaeological resources.

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

Less Than Significant Impact. There are no dedicated cemeteries within the Project site or surrounding area. Most Native American human remains are found in association with prehistoric archaeological sites. As discussed above, there are no known archaeological resources within the Project site or surrounding area and the potential for archaeological resources is considered low. However, there is the potential for previously unknown human remains to be discovered/disturbed during the Project's ground disturbing activities, resulting in a potentially significant impact.

If human remains are found, the remains would require proper treatment in accordance with applicable laws, including State of California Health and Safety Code Sections 7050.5-7055 and Public Resources Code Section 5097.98 and Section 5097.99. Health and Safety Code Sections 7050.5-7055 describe the general provisions for treatment of human remains. Specifically, Health and Safety Code Section 7050.5 prescribes the requirements for the treatment of any human remains that are accidentally discovered during excavation of a site. Health and Safety Code Section 7050.5 also requires that all activities cease immediately, and a qualified archaeologist and Native American monitor be contacted immediately. As required by State law, the procedures set forth in Public Resources Code Section 5087.98 would be implemented, including evaluation by the County Coroner and notification of the NAHC. The NAHC would designate the "Most Likely Descendent" of the unearthed human remains. If human remains are found during excavation, excavation would be halted near the find and any area that is reasonably suspected to overlay adjacent remains shall remain undisturbed until the County Coroner has investigated, and appropriate recommendations have been made for treatment and disposition of the remains. Following compliance with the established regulatory framework (Health and Safety Code Sections 7050.5-7055 and Public Resources Code Section 5097.98 and Section 5097.99), the Project's potential impacts concerning human remains would be less than significant.

Mitigation Measures: No mitigation measures are required.

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6.6 Energy

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

REGULATORY FRAMEWORK

California Building Energy Efficiency Standards (Title 24)

The 2022 California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6), commonly referred to as "Title 24," became effective on January 1, 2023. In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The 2022 Title 24 standards encourage efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards. Over 30 years, the 2022 Title 24 standards is estimated to reduce 10 million metric tons of greenhouse gas emissions.

California Green Building Standards (CALGreen)

The 2022 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as CALGreen, went into effect on January 1, 2023. The California Building Standards Commission developed CALGreen in an effort to meet the State's landmark initiative Assembly Bill (AB) 32 goals, which established a comprehensive program of cost-effective reductions of greenhouse gas (GHG) emissions to 1990 levels by 2020. CALGreen was developed to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, and healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the environmental directives of the administration. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies (e.g., lighting, heating/ventilation and air conditioning [HVAC], and plumbing fixtures), divert construction waste from landfills, and incorporate electric vehicles charging infrastructure. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.

Senate Bill 100

Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; 60 percent by December 31, 2030; and 100 percent by December 31, 2045. The bill requires the California Public Utilities Commission (CPUC), California Energy Commission (CEC), State board or the California Air Resources Board's (CARB), and all other State agencies to incorporate the policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and CARB to utilize programs authorized under existing statutes to achieve that policy and, as part of a public process, issue a joint report to the Legislature by January 1, 2021, and every four years thereafter, that includes specified information relating to the implementation of SB 100.

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered "wasteful, inefficient, and unnecessary" if it were to violate State and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The Project proposes to remove all existing on-site improvements within the 0.66-gross acre site and construct 14 two- and three-story attached townhomes. The amount of energy used at the Project site would directly correlate to the size of the proposed units, the energy consumption of associated unit appliances, and outdoor lighting. Other major sources of Project energy consumption include fuel used by vehicle trips generated during Project construction and operation, and fuel used by off-road construction vehicles during construction.

The following discussion provides calculated levels of energy use expected for the proposed Project, based on commonly used modelling software (i.e., CalEEMod v.2022.1 and the California Air Resource Board's EMFAC2021). It should be noted that many of the assumptions provided by CalEEMod are conservative relative to the Project; thus, this discussion provides a conservative estimate of proposed Project emissions.

Electricity and Natural Gas

Electricity used by the Project would be used primarily to power on-site buildings; the Project would not utilize natural gas. Total annual natural gas (kBTU) and electricity (kWh) usage associated with the operation of the Project are shown in Table 6.6-1, *Project Operational Natural Gas and Electricity Usage*.

Table 6.6-1
Project Operational Natural Gas and Electricity Usage

Emissions	Project Annual Consumption	Los Angeles County Annual Consumption	Percent Increase
Natural Gas Consumption (therms)	0	0	0%
Electricity Consumption (MWh/year)	51	68,486,000	0.00007%
Sources: CalEEMod version 2022.1; California Energy Commission, Electricity Consumption by County; Natural Gas Consumption by County.			

CalEEMod uses the California Commercial End Use Survey (CEUS) database to develop energy intensity value for non-residential buildings. The energy use from residential land uses is calculated based on the Residential Appliance Saturation Survey (RASS). Similar to CEUS, this is a comprehensive energy use assessment that includes the end use for various climate zones in California.

As shown in Table 6.6-1, Project operational electricity usage is forecast to represent an approximately 0.00007 percent increase above the County's typical annual electricity consumption. These increases are minimal in the context of the County as a whole.

On-Road Vehicles (Operation)

The Project would generate vehicle trips during its operational phase. According to the traffic report prepared by MAT Engineering (refer to Appendix G), the Project would generate approximately 65 net average daily vehicle trips. In order to calculate operational on-road vehicle energy usage and emissions, default trip lengths generated by CalEEMod (version 2022.1) were used, which are based on the Project location and urbanization level parameters selected within CalEEMod; refer to Appendix A. The Project would generate an estimated total of approximately 615 average daily vehicle miles traveled (Average Daily VMT).[17] Based on fleet mix data provided by CalEEMod and Year 2024 gasoline and diesel miles per gallon (MPG) factors for individual vehicle classes as provided by EMFAC2021, a weighted MPG factor for operational on-road vehicles of approximately 24.7 MPG for gasoline vehicles were derived. Therefore, the Project would generate vehicle trips that would use approximately 25 gallons of gasoline per day or 9,093 gallons of gasoline per year.

Other

Project landscape maintenance activities would generally require the use of fossil fuel (e.g., gasoline) energy. For example, lawn mowers require the use of fuel for power. It is estimated that landscape care maintenance would require approximately one individual, one hour per week, or 52 person-hours per year. Assuming an average of approximately 0.5 gallons of gasoline used per person-hour, the Project would use approximately 26 gallons of gasoline per year to power landscape maintenance equipment. The energy used to power landscape maintenance equipment would not differ substantially from the energy required for landscape maintenance for a similar Project.

[17] Estimated VMT is generated from CalEEMod based upon the number of Project trips and an average trip length. CalEEMod average trip lengths are used since the Project satisfies the City's SB 743 Implementation Guidance criteria for VMT screening and a detailed VMT analysis is not required; refer to Section 6.17, *Transportation*.

On-Road Vehicles (Construction)

The Project would also generate on-road vehicle trips during Project construction (from construction workers and vendors). Estimates of anticipated vehicle fuel consumption were derived based on the assumed construction schedule, vehicle trip lengths, and number of workers per construction phase as provided by CalEEMod, and MPG factors provided by EMFAC2025. Off-road construction vehicles would use diesel fuel during the construction phase of the Project. Off-road construction vehicles expected to be used during the construction phase of the Project include, but are not limited to, cranes, forklifts, generator sets, tractors, excavators, and dozers. Based on the total amount of CO_2 emissions expected to be generated by the proposed Project (as provided by the CalEEMod output), and a CO_2 to diesel fuel conversion factor (provided by the U.S. Energy Information Administration), the Project would use up to approximately 574 gallons of diesel fuel for off-road construction vehicles during the demolition, site preparation, and grading phases of the Project; refer to Appendix A for detailed calculations.

Table 6.6-2, *Fuel Consumption Construction Source*, describes gasoline and diesel fuel used by on-road mobile sources during each phase of the construction schedule.

Table 6.6-2
Fuel Consumption by Construction Source

Construction Source	Gasoline (gallons)	Diesel (gallons)
Construction Vehicles	991	6,722
Worker Trips	1,636	7,038
Vendor Trips	1	723
Haul Trucks	90	21
Total	**2,719**	**14,504**

Conclusion

The proposed Project would use energy resources for the operation of the residential buildings (e.g., electricity), for on-road vehicle trips (e.g., gasoline and diesel fuel) generated by the Project (both during Project construction and operation), and from off-road construction activities associated with the Project (e.g., diesel fuel). Each of these activities would require the use of energy resources. The Project would conserve energy through compliance with Statewide and local measures regarding energy conservation, such as Title 24 building efficiency standards.

The proposed Project would be in compliance with all applicable federal, State, and local regulations regulating energy usage and renewable energy generation. For example, Southern California Edison (SCE) is responsible for the mix of energy resources used to provide electricity for its customers, and it is implementing the Statewide Renewable Portfolio Standard (RPS) to increase the proportion of renewable energy (e.g., solar and wind) within its energy portfolio. SCE has achieved at least a 35 percent mix of renewable energy resources, and will be required to achieve a renewable mix of at least 50 percent by 2030. Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards (“part 6”), would be applicable to the proposed Project. Other statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g., the Pavley Bill and the Low Carbon Fuel Standard) are improving vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

As a result, the Project would not result in any significant adverse impacts related to Project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the Project including construction, operations, maintenance, and/or removal. SCE, the electricity provider to the site, maintain sufficient capacity to serve the proposed Project. The Project would be required to comply with the latest energy efficiency standards, and would not result in significant adverse impacts on energy resources. Therefore, the proposed Project would not result in a wasteful, inefficient, or unnecessary of energy resources during Project construction or operation, or conflict with or obstruct any State or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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6.7 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
2) Strong seismic ground shaking?			X	
3) Seismic-related ground failure, including liquefaction?			X	
4) Landslides?				X
b. Result in substantial soil erosion or the loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

This section is based in part on *Geology and Paleontology Background of the 9001-9012 Long Beach Boulevard Project, Los Angeles County, California* (Geology and Paleontology Background Report), dated January 24, 2023, prepared by PaleoWest and included as Appendix D, Geology and Paleontological Background Report, and *Phase I Environmental Site Assessment* (Phase I ESA), *Phase II Environmental Site Assessment* (Phase II ESA) dated June 21, 2019, and *Additional Phase II Environmental Site Assessment* (Additional Phase II ESA) dated January 28, 2020, prepared by Rincon Consultants, Inc., and included as Appendix E, Hazardous Materials Studies.

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

***No Impact*.** The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State Geologist to establish regulatory zones, known as "Alquist-Priolo Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet). According to the Department of Conservation Geologic Hazards Map, the Project site and surrounding area are not within an Alquist-Priolo Fault Zone; no impact would occur.[18]

Mitigation Measures: No mitigation measures are required.

2) Strong seismic ground shaking?

***Less Than Significant Impact*.** The Project site is located in a seismically active area that has historically been affected by moderate to occasionally high levels of ground motion. However, there are no known seismically active faults within five miles of the Project site; the nearest known active fault is the Avalon-Compton fault, approximately six miles southwest of the site.[19] Regardless, during the life of the proposed development, it is likely the Project would experience moderate to occasionally high ground shaking from these fault zones, as well as background shaking from other seismically active areas of the southern California region. Therefore, the Project could expose people or structures to potential adverse effects as a result of strong seismic ground shaking. The intensity of ground shaking on the Project site would depend upon the earthquake's magnitude, distance to the epicenter, and geology of the area between the Project site and epicenter.

[18] California Department of Conservation, *Data Viewer, Earthquake Zone App,* available at https://maps.conservation.ca.gov/geologichazards/ accessed November 25, 2025.
[19] California Department of Conservation, *Data Viewer, Fault Activity Map,* available at https://maps.conservation.ca.gov/cgs/fam/ accessed November 25, 2025.

Pursuant to South Gate Municipal Code Chapter 9.02, *Building Code*, the City has adopted the 2022 California Building Code (CBC), subject to certain amendments and changes, including amendments specific to seismic conditions; the 2025 CBC goes into effect on January 1, 2026. The Project would be required to comply with all applicable regulations in the most recent CBC as amended by the South Gate Municipal Code, which includes design requirements to mitigate the effects of potential hazards associated with seismic ground shaking. The City of South Gate Building and Safety Division would review Project construction plans for compliance with the CBC and the Municipal Code. Thus, compliance with the City's established regulatory framework and standard engineering practices and design criteria, which would be verified through the City's construction plan review process, would ensure potential impacts associated with strong seismic ground shaking at the Project site would be reduced to a less than significant level.

Mitigation Measures: No mitigation measures are required.

3) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is a phenomenon where earthquake-induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. Engineering research of soil liquefaction potential indicates that generally three basic factors must exist concurrently in order for liquefaction to occur. These factors include:

- A source of ground shaking, such as an earthquake, capable of generating soil mass distortions.
- A relatively loose silty and/or sandy soil.
- A relative shallow groundwater table (within approximately 50 feet below ground surface) or completely saturated soil conditions that will allow positive pore pressure generation.

According to the Department of Conservation, the Project site is mapped within a liquefaction zone.[20] However, according to the South Gate General Plan, the water table fluctuates between 80–100 feet below the surface (or more), and the City does not consider liquefaction as a substantial risk in the community. Subsurface exploration conducted at the Project site as part of the Phase I ESA did not encounter groundwater and groundwater was determined to be as deep at 60 feet. The Phase I ESA identified the Project site as underlain by Quaternary aged alluvium. Specifically, the Quaternary alluvium consists of young alluvium; older wash deposits and younger fan deposits can also be found in the surrounding area.

The Project would be required to comply with all applicable regulations in the most recent CBC as amended by the South Gate Municipal Code, which includes design requirements to mitigate the effects of potential hazards associated with seismic-related ground failure, including potential liquefaction. The City of South Gate Building and Safety Division would review Project construction plans for compliance with the CBC and the Municipal Code. Thus, compliance with the City's established regulatory framework and standard engineering practices and design criteria, which would be verified through the City's

[20] California Department of Conservation, *Data Viewer, Earthquake Zone App,* available at https://maps.conservation.ca.gov/geologichazards/ accessed November 25, 2025.

construction plan review process, would ensure potential impacts associated with seismic-related ground failure, including liquefaction at the Project site would be reduced to a less than significant level.

Mitigation Measures: No mitigation measures are required.

4) Landslides?

No Impact. Landslides are mass movements of the ground that include rock falls, relatively shallow slumping and sliding of soil, and deeper rotational or transitional movement of soil or rock. According to the Department of Conservation, geologic hazards associated with landsliding are not anticipated as the Project site is not located within a landslide hazard zone area as identified by the California Geologic Survey.[21] Further, the Project site and surrounding area are relatively flat and do not contain any landforms capable of experiencing landslides, hence, no impacts are anticipated to occur.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The Project site and surrounding area are relatively flat. According to the Phase I ESA, the site is primarily underlain by Quaternary geologic age alluvium; specifically, the alluvium consists of young alluvium. Older wash deposits and younger fan deposits can also be found in the surrounding area. Grading and earthwork activities associated with Project construction could expose soils to potential short-term erosion by wind and water. Before construction activities commence on the site, remedial excavation of impacted soil would occur. The remedial excavation would involve the removal, transport, and disposal of contaminated soil; refer to Section 6.9, *Hazards and Hazardous Materials*, for additional information regarding site characterization and remediation. Development of the Project would not substantially increase the amount of impervious area when compared to existing conditions; refer to Response 6.10(a).

South Gate Municipal Code Chapter 6.67*, Storm Drains*, is intended to protect the public health, welfare and safety and to reduce the quantity of pollutants being discharged to the waters of the United States through: "the elimination of non-stormwater discharges to the municipal separate stormwater system; the elimination of spillage, dumping and disposal of pollutants into the municipal separate storm sewer system; the reduction of pollutants in stormwater discharges to the maximum extent practicable; the protection and enhancement of the quality of the waters of the United States in a manner consistent with the provisions of the Clean Water Act; and the reduction and contribution of pollutants from the MS4 through interagency coordination." Municipal Code Section 6.67.030, *Pollutant source reduction*, states that "all persons engaged in construction activity within the City shall operate in compliance with all State and federal laws regulating or pertaining to stormwater management and runoff; proof of compliance may be required by the director of community development or building official prior to the issuance of any grading, building or occupancy permit or any other type of permit or license issued by the City." Municipal Code Section 6.67.030 contains Best Management Practices (BMPs) that Project construction

[21] California Department of Conservation, *Data Viewer, Earthquake Zone App,* available at https://maps.conservation.ca.gov/geologichazards/ accessed November 25, 2025.

would be subject to adhere to (refer to Response 6.10(a)), thereby reducing potential impacts associated with soil erosion or the loss of topsoil during construction activities to a less than significant level.

To comply with Chapter 6.67 of the Municipal Code, the Project applicant would be required to submit a Low Impact Development (LID) plan to the Department of Community Development prior to the submittal of an application for the first planning or building approval for a new development project. The LID plan would include measures designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by controlling runoff from impervious surfaces through infiltration, evapotranspiration, bio-retention and/or rainfall harvest and use. The Project applicant would be required to implement the LID standards and best management practices (BMPs) for stormwater pollution mitigation and provide documentation to demonstrate compliance with the municipal National Pollutant Discharge Elimination System (NPDES) permit on the plans and permit application submitted to the City.

The Project proposes to include an on-site stormwater capture system (dry well system) that would be placed under the driveway behind the units. The system would meet LID requirements and would discharge to Long Beach Boulevard. Following compliance with the established regulatory framework identified in the South Gate Municipal Code regarding stormwater and runoff pollution control, potential impacts associated with soil erosion and the loss of topsoil would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

***Less Than Significant Impact*.** Refer to Responses 6.7(a)(3) and 6.7(a)(4) regarding the potential for liquefaction and landslides, respectively.

The Project would be required to comply with all applicable regulations in the most recent CBC as amended by the South Gate Municipal Code (Chapter 9.02, *Building Code)*, which includes design requirements to mitigate the effects of potential hazards associated with landslides, lateral spreading, subsidence, liquefaction, and collapse. The City of South Gate Building and Safety Division would review Project construction plans for compliance with the CBC and the Municipal Code. Thus, compliance with the City's established regulatory framework and standard engineering practices and design criteria, which would be verified through the City's construction plan review process, would ensure potential impacts associated with unstable soil at the Project site would be reduced to a less than significant level.

Mitigation Measures: No mitigation measures are required.

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

***Less Than Significant Impact*.** Expansive soils contain significant amounts of clay particles that swell considerably when wetted and shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result. According to the United States Department of Agriculture Web Soil Survey, the Project site is underlain with Urban land-Biscailuz-Hueneme, drained complex, 0 to 2 percent slopes soils. This soil has a moderate infiltration rate when thoroughly wet. These soils consist of chiefly moderately deep or deep, moderately well drained, or well drained soils that have

moderately fine texture or moderately course texture.[22] These soils do not have a high shrink-swell potential. As such, hazards associated with expansive soils are not anticipated to impact the Project.

The Project would be required to comply with all applicable regulations in the most recent CBC as amended by the South Gate Municipal Code (Chapter 9.02, *Building Code)*, which includes design requirements to mitigate the effects of potential hazards associated with unstable and/or expansive soils. The City of South Gate Building and Safety Division would review Project construction plans for compliance with the CBC and the Municipal Code. Thus, compliance with the City's established regulatory framework and standard engineering practices and design criteria, which would be verified through the City's construction plan review process, would ensure potential impacts associated with expansive soil at the Project site would be reduced to a less than significant level.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The Project would be served by the existing sewer system and would not involve the use of septic tanks or alternative wastewater disposal systems.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact with Mitigation Incorporated. Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important.

The Geology and Paleontology Background Report identifies the geology of the Project site is mapped by Saucedo et al. (2016) and is entirely underlain by Quaternary young alluvium, unit 2 (Qya_2). The Quaternary young alluvium was deposited during the Holocene and is composed of poorly consolidated floodplain deposits of clay, silt, and sand. Holocene alluvial deposits are typically too young to preserve paleontological resources. However, at depth the Holocene sediments may grade into older buried Pleistocene deposits that have the potential to preserve fossil remains. Pleistocene sedimentary deposits have yielded an abundant and diverse vertebrate fauna throughout California, especially within the Los Angeles Basin. Pleistocene vertebrate fossil specimens of ground sloth, bison, camel, mammoth, pocket

[22] US Department of Agriculture (USDA), Web Soil Survey National Cooperative Soil Survey, *Map Unit Description, Urban land-Biscailuz-Hueneme, drained complex, 0 to 2 percent slopes---Los Angeles County, California, Southeastern Part*, November 25, 2025.

gopher, and bird have been reported in older alluvial deposits in the Los Angeles Basin in the vicinity of the Project area

As part of the Geology and Paleontology Background Report, a records search of the Project area was obtained from the Natural History Museum of Los Angeles County (NHMLA). The NHMLA reports that there are no previously recorded vertebrate fossil localities in the Project area; however, museum collections record at least five vertebrate localities identified from similar geologic deposits in the vicinity of the Project site. Recovered specimens include mammoth, unspecified vertebrates, and invertebrate fossils from a depth of 15 to 20 feet below ground surface.

In accordance with Society of Vertebrate Paleontology (2010) guidelines, the paleontological sensitivity of the Project area was determined based on a literature review and online museum locality search at the University of California Museum of Paleontology (UCMP). The results of the study indicate that the geologic units underlying the Project area have a low paleontological sensitivity at the surface because Holocene sedimentary deposits, particularly those younger than 5,000 years old, are generally too young to contain fossilized material. The Holocene sediments may be underlain by older Quaternary (Pleistocene) alluvial deposits at an unknown depth. Pleistocene alluvium in the Los Angeles Basin typically has a high paleontological resource sensitivity due to the high potential of those deposits to yield significant vertebrate fossils.

In general, the potential for a given project to result in negative impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the project; thus, the higher the amount of ground disturbances within geological deposits with a known paleontological sensitivity, the greater the potential for negative impacts to paleontological resources. New ground disturbances are anticipated for the Project; however, the underlying sediment is likely to be Holocene in age to a significant depth, and ground disturbances are not anticipated to result in significant impacts to paleontological resources. In the event that Pleistocene sediments are encountered and a fossil discovery is made during the course of Project development, Mitigation Measure GEO-1 would require a qualified professional paleontologist to be contacted in order to examine the find and determine if further paleontological resource mitigation is warranted. With implementation of Mitigation Measure GEO-1, potential impacts to paleontological resources would be reduced to a less than significant level.

Mitigation Measures:

GEO-1: If fossils or fossil bearing deposits are encountered during ground-disturbing activities, work within a 25-foot radius of the find shall halt and a professional vertebrate paleontologist (as defined by the Society for Vertebrate Paleontology) shall be contacted immediately to evaluate the find. The paleontologist shall have the authority to stop or divert construction, as necessary. Documentation and treatment of the discovery shall occur in accordance with Society of Vertebrate Paleontology standards. The significance of the find shall be evaluated pursuant to the State CEQA Guidelines. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the paleontologist.

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6.8 Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2021, accounting for 38.2 percent of total GHG emissions in the State.[23] This category was followed by the industrial sector (19.4 percent), the electricity generation sector (including both in-State and out-of-State sources) (16.4 percent), residential and commercial sector (10.2), agriculture sector (8.1 percent), high global warming potential gases (5.6 percent), and waste sectors (2.2 percent). Emissions of CO_2 and nitrous oxide (NO_2) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean.

REGULATORY FRAMEWORK

The following section summarizes pertinent federal, State, and local regulations related to GHGs.

U.S. Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency's (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet

[23] California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2021: Trends of Emissions and Other Indicators*, https://ww2.arb.ca.gov/sites/default/files/2023-12/2000_2021_ghg_inventory_trends.pdf, December 2023, accessed March 29, 2025.

the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO2, CH4, N2O, hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF6]) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Clean Air Act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500-38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to Assembly Bill (AB) 1493 (Pavley Bill) should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then the California Air Resources Board (CARB) should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 375

Senate Bill (SB) 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities' strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, is required to provide each affected region with GHG reduction targets emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets are to be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding.

Executive Order S-3-05

Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- 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.

The Executive Order directed the California Environmental Protection Agency (Cal/EPA) Secretary to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is required to submit biannual reports to the Governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with Executive Order S-3-05, the Cal/EPA Secretary created the California Climate Action Team, made up of members from various State agencies and commissions. The Climate Action Team released its first report in March 2006, which

proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Title 24, Part 6

The California Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6 of the California Code of Regulations (CCR) and commonly referred to as "Title 24" were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Part 6 of Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2025 Title 24 standards took effect on January 1, 2026.

Title 24, Part 11

The California Green Building Standards Code (CCR Title 24, Part 11), commonly referred to as CALGreen, is a Statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in five green building topical areas. The most recent update to the CALGreen Code went into effect on January 1, 2026.

Senate Bill 3

Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). SB 32 authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

CARB Scoping Plan

On December 11, 2008, CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by Assembly Bill (AB) 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce carbon dioxide-equivalent (CO_2e) emissions by 169 million metric tons (MMT), or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT of CO_2e under a business-as-usual scenario. The Scoping Plan also breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the State's GHG inventory.

CARB updated the Scoping Plan in 2013 and again in 2017. The 2013 Update built upon the initial Scoping Plan with new strategies and recommendations and also set the groundwork to reach the long-term goals set forth by the State. Successful implementation of existing programs (as identified in previous iterations of the Scoping Plan) has allowed California to meet the 2020 target. The 2017 Update expanded the scope of the plan further by focusing on the strategy for achieving the State's 2030 GHG target of 40 percent emissions reductions below 1990 levels (to achieve the target codified into law by SB 32) and substantially advanced toward the State's 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

The 2017 Update relied on the preexisting programs paired with an extended, more stringent Cap-and-Trade Program, to deliver climate, air quality, and other benefits. The 2017 Update identified new

technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction goals.

CARB adopted the 2022 Scoping Plan Update (2022 Scoping Plan) on December 15, 2022. The 2022 Scoping Plan Update assesses progress towards the SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030, while laying out a path to achieving carbon neutrality no later than 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (CAP) consistent with CEQA Guidelines section 15183.5.

THRESHOLDS OF SIGNIFICANCE

Amendments to CEQA Guidelines Section 15064.4 were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions and gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. This section recommends certain factors to be considered in the determination of significance (i.e., the extent to which a project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHGs). The amendments do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7(c)). The California Natural Resources Agency has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and therefore GHG emissions should be analyzed in the context of CEQA's requirements for cumulative impact analyses (CEQA Guidelines Section 15064(h)(3)).[24,25] A project's incremental contribution to a cumulative impact can be found not to be cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially lessen the cumulative problem within the geographic area of the project.

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

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

Less Than Significant Impact. The proposed Project would generate GHGs during the construction and operational phases of the Project. The Project's primary source of construction-related GHGs would result from emissions of CO_2 associated with Project construction and worker vehicle trips; refer to Table 6.8-1,

[24] California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action*, pp. 11-13, 14, 16, December 2009, https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Final_Statement_of_Reasons.pdf.
[25] State of California Governor's Office of Planning and Research, *Transmittal of the Governor's Office of Planning and Research's Proposed SB97 CEQA Guidelines Amendments to the Natural Resources Agency*, April 13, 2009, https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C01.pdf.

Construction GHG Emissions (Unmitigated Metric Tons/Year). Additionally, the Project would require grading, and would also include demolition, site preparation, building construction, and architectural coating phases.

Table 6.8-1
Construction GHG Emissions (Unmitigated Metric Tons/Year)

Year	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
2026	0	82	82	<1	<1	83
2027	0	172	172	<1	<1	173
2028	0	1	1	<1	<1	1
Total	**0**	172	172	**<1**	**<1**	257
30-Year Amortization						**9**
Source: CalEEMod version 2022.1						

As shown in Table 4.6-1, Project construction-related activities would generate a maximum of approximately 173 $MTCO_2e$ of GHG emissions in a single year, or approximately 257 $MTCO_2e$ over the course of construction. Construction GHG emissions are typically summed and amortized over the Project's lifetime (assumed to be 30 years), then added to the operational emissions.[26] The amortized Project emissions would be approximately 9 $MTCO_2e$ per year. Once construction is complete, the generation of construction-related GHG emissions would cease.

The operational phase of the Project would generate GHGs primarily from the Project's operational vehicle trips and building energy (i.e., electricity) usage; refer to Table 6.8-2, *Operational GHG Emissions (Unmitigated Metric Tons/Year)*. Other sources of GHG emissions would be minimal.

Table 6.8-2
Operational GHG Emissions (Unmitigated Metric Tons/Year)

Category	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
Mobile		76	76	<10	<10	77
Area	0	0	0	<1	<1	0
Energy		8	8	<1	<1	8
Water	0	1	1	<1	<1	1
Waste	1	0	1	<1	<1	3
Refrig.				<1	<1	0
Total	**1**	**85**	**86**	**<1**	**<1**	**90**
Source: CalEEMod version 2022.1						

[26] The Project lifetime is based on SCAQMD's standard 30-year assumption (South Coast Air Quality Management District, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13, August 26, 2009).

As shown in Table 6.8-2, Project operational GHG emissions would total approximately 90 $MTCO_2e$ annually, and combined with construction-related GHG emissions, would total approximately 96 $MTCO_2e$ annually. Therefore, the proposed Project would not exceed the SCAQMD's proposed GHG threshold of 3,000 MTCO2e per year.[27] In addition, with continued implementation of various statewide measures, the Project's operational energy and mobile source emissions would continue to decline in the future.

Consistency with Applicable GHG Plans, Policies, or Regulations

The Project is not located in a City with a Climate Action Plan. Therefore, the Project is evaluated for its consistency with the latest adopted CARB Scoping Plan from and the latest SCAG RTP/SCS, as provided below.

2022 Scoping Plan Consistency

CARB's latest Climate Change Scoping Plan (2022) outlines the State's strategies to reduce GHG emissions in accordance with the targets established under AB 32, SB 32, and AB 1279. The Scoping Plan is applicable to State agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

Table 6.8-3, *Project Consistency with the 2022 Scoping Plan*, summarizes the Project's consistency with applicable policies and measures of the 2022 Scoping Plan. As indicated in Table 6.8-3, the Project would not conflict with any of the provisions of the 2022 Scoping Plan and would support four of the action categories through energy efficiency, water conservation, recycling, and landscaping.

[27] On September 28, 2010, air quality experts serving on the SCAQMD GHG CEQA Significance Threshold Stakeholder Working Group recommended an interim screening level numeric bright-line threshold of 3,000 metric tons of CO_2e annually. The Working Group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments. The numeric bright line and efficiency-based thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provide guidance to CEQA practitioners and lead agencies for determining whether GHG emissions from a proposed project are significant.

Table 6.8-3
Project Consistency with the 2022 Scoping Plan

Sector/Source	Category/Description	Consistency Analysis
Area		
SCAQMD Rule 445 (Wood Burning Devices)	Restricts the installation of wood-burning devices in new development.	Mandatory Compliance. Approximately 15 percent of California's major anthropogenic sources of black carbon include fireplaces and woodstoves.[1] The Project would not include hearths (woodstove and fireplaces) as mandated by this rule.
Energy		
California Renewables Portfolio Standard, Senate Bill 350 (SB 350) and Senate Bill 100 (SB 100)	Increases the proportion of electricity from renewable sources to 33 percent renewable power by 2020. SB 350 requires 50 percent by 2030. SB 100 requires 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030. It also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.	No Conflict. The Project would utilize electricity provided by Southern California Edison (SCE), which is required to meet the 2020, 2030, 2045, and 2050 performance standards. In 2024, approximately 35 percent of SCE's electricity came from renewable resources.[2] By 2030, SCE plans to achieve 80 percent carbon-free energy.[3]
All Electric Appliances for New Residential and Commercial Buildings (AB 197)	All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030	No Conflict. Although not required, the Project would not utilize natural gas; it is electric-only. Therefore, the Project would use only electric appliances.
California Code of Regulations, Title 24, Building Standards Code	Requires compliance with energy efficiency standards for residential and nonresidential buildings.	Mandatory Compliance. The Project is required to meet the applicable requirements of the 2022 Title 24 Building Energy Efficiency Standards, including installation of rooftop solar panels and additional CALGreen requirements (see discussion under CALGreen Code requirements below).

Table 6.8-3 (continued)
Project Consistency with the 2022 Scoping Plan

Sector/Source	Category/Description	Consistency Analysis
California Green Building Standards (CALGreen) Code Requirements	All bathroom exhaust fans are required to be ENERGY STAR compliant.	Mandatory Compliance. The Project construction plans are required to demonstrate that energy efficiency appliances, including bathroom exhaust fans, and equipment are ENERGY STAR compliant.
	HVAC system designs are required to meet American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards.	Mandatory Compliance. The Project construction plans are required to demonstrate that the HVAC system meets the ASHRAE standards.
	Air filtration systems are required to meet a minimum efficiency reporting value (MERV) 8 or higher.	Mandatory Compliance. The Project is required to install air filtration systems (MERV 8 or higher) as part of its compliance with the 2022 Title 24 Building Energy Efficiency Standards.
	Refrigerants used in newly installed HVAC systems shall not contain any chlorofluorocarbons.	Mandatory Compliance. The Project must meet this requirement as part of its compliance with the CALGreen Code.
	Parking spaces shall be designed for carpool or alternative fueled vehicles. Up to eight percent of total parking spaces is required for such vehicles.	Mandatory Compliance. The Project would meet this requirement as part of its compliance the CALGreen Code.
Mobile Sources		
Mobile Source Strategy (Cleaner Technology and Fuels)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of vehicle miles traveled.	Consistent. The Project would be consistent with this strategy by supporting the use of zero-emission and low-emission vehicles; refer to CALGreen Code discussion above.
Senate Bill (SB) 375	SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035.	Consistent. As demonstrated in Table 6.8-4, the Project would comply with the Southern California Association of Governments (SCAG) Connect SoCal (SCAG's 2024-2050 RTP/SCS), and therefore, the Project would be consistent with SB 375.

Table 6.8-3 (continued)
Project Consistency with the 2022 Scoping Plan

Sector/Source	Category/Description	Consistency Analysis
Water		
CCR, Title 24, Building Standards Code	Title 24 includes water efficiency requirements for new residential and non- residential uses.	Mandatory Compliance. Refer to the discussion under 2022 Title 24 Building Standards Code and CALGreen Code, above.
Water Conservation Act of 2009 (Senate Bill X7-7)	The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal. This is an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convene, treat, and distribute the water; it also reduces emissions from wastewater treatment.	Consistent. Refer to the discussion under 2022 Title 24 Building Standards Code and CALGreen Code, above. Also, refer to Section 6.10, *Hydrology and Water Quality*.
Solid Waste		
California Integrated Waste Management Act (IWMA) of 1989 and Assembly Bill (AB) 341	The IWMA mandates that State agencies develop and implement an integrated waste management plan which outlines the steps to divert at least 50 percent of solid waste from disposal facilities. AB 341 directs the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling and sets a Statewide goal for 75 percent disposal reduction by the year 2020.	Mandatory Compliance. The Project would be required to comply with AB 341 which requires multifamily residential dwelling of five units or more to arrange for recycling services. This would reduce the overall amount of solid waste disposed of at landfills. The decrease in solid waste would in return decrease the amount of methane released from decomposing solid waste.

Notes:
1. California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, Figure 4: California 2013 Anthropogenic Black Carbon Emission Sources, November 2017.
2. California Energy Commission, *2024 Power Content Label,* https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.energy.ca.gov%2Fsites%2Fdefault%2Ffiles%2F2026-01%2F2024_Power_Content_Labels_Sortable_Table_updated_01-05-2026_ADA.xlsx&wdOrigin=BROWSELINK, accessed February 12, 2026.
3. Southern California Edison, *The Clean Power and Electrification Pathway,* https://newsroom.edison.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/166/files/20187/g17-pathway-to-2030-white-paper.pdf, accessed June 24, 2020.
4. California Energy Commission, *2013 California Energy Efficiency Potential and Goals Study*, Appendix Volume I, August 15, 2013.

2020-2045 RTP/SCS Consistency

At the regional level, the 2024-2050 RTP/SCS is adopted for the purpose of reducing GHGs resulting from vehicular emissions by passenger vehicles and light duty trucks. In order to assess the Project's consistency with the 2024-2050 RTP/SCS, the Project's land use assumptions are reviewed for consistency with those utilized by SCAG in its SCS. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as the 2024-2050 RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. Table 6.8-4, *Project Consistency with the 2024-2050 RTP/SCS*, analyzes the Project's consistency with the overall actions and strategies set forth in the 2024-2050 RTP/SCS, as applicable. As indicated in Table 6.8-4, the Project would be consistent with the 2024-2050 RTP/SCS.

As indicated in Table 6.8-4, the Project would not generate GHG emissions that would have a significant impact on the environment or conflict with any applicable plans, policies, or regulations, including GHG reduction actions/strategies in the 2022 Scoping Plan and 2024-2050 RTP/SCS. Thus, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs, and impacts would be less than significant.

Table 6.8-4
Project Consistency with the 2024-2050 RTP/SCS

Sector/Source	Category/ Description	Consistency Analysis
Land Use Strategies		
Focus new growth around transit.	Local Jurisdictions	Consistent. The Project proposes higher density residential development within a high-quality transit area. The Project is located adjacent to Long Beach Boulevard, which is served by frequent transit routes, including bus stops at the nearby Firestone Boulevard/Long Beach Boulevard intersection.
Provide more options for short trips through Neighborhood Mobility Areas and Complete Communities.	SCAG; Local Jurisdictions	Consistent. The Complete Communities strategy supports the creation of mixed-use districts through a concentration of activities with housing and employment located in close proximity to each other. The proposed Project would support this strategy by providing higher density residential uses within walking distance to employment opportunities (i.e., retail and restaurant uses). Neighborhood Mobility Areas provide sustainable transportation options to make short trips within urban neighborhoods. The Project would support this strategy by incorporating walking paths/sidewalks, and would be located within walking distance (i.e., 0.25-mile) to retail and restaurants.

Table 6.8-4 (continued)
Project Consistency with the 2024-2050 RTP/SCS

Sector/Source	Category/ Description	Consistency Analysis
Transportation Strategies		
Manage congestion through programs like the Congestion Management Program, Transportation Demand Management, and Transportation Systems Management strategies.	County Transportation Commissions; Local Jurisdictions	Not Applicable. This strategy applies to public agencies that govern transportation facilities and transportation programs.
Technological Innovation and 21st Century Transportation		
Promote zero-emissions vehicles.	SCAG; Local Jurisdictions	Not Applicable. This action/strategy is directed at regional and local agencies, and not at individual development projects. However, per the 2022 Title 24 Building Standards Code and CALGreen Code, the Project would be required to designate a minimum of ten percent of the total multifamily dwelling parking spaces as EV capable spaces to support future Level 2 electric vehicle supply equipment.
Source: Southern California Association of Governments, *2024-2050 Regional Transportation Plan/Sustainable Communities Strategy*, April 2024.		

Mitigation Measures: No mitigation measures are required.

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6.9 Hazards and Hazardous Materials

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X		
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

This section is based in part on the *Phase I Environmental Site Assessment* (Phase I ESA) prepared in 2019, *Phase II Environmental Site Assessment* (Phase II ESA) dated June 21, 2019, and *Additional Phase II Environmental Site Assessment* (Additional Phase II ESA) dated January 28, 2020, prepared by Rincon Consultants, Inc., and included as Appendix E, Hazardous Materials Studies.

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

Less Than Significant Impact. The Project involves construction activities associated with removal of the existing structure associated with the auto repair shop and asphalt, grading, and construction and operation of a residential development. Refer to Response 4.9(b) regarding existing on-site conditions. Generally, the exposure of persons to hazardous materials could occur in the following manners: 1) improper handling or use of hazardous materials or hazardous wastes during construction or operation of future development, particularly by untrained personnel; 2) an accident during transport; 3) environmentally unsound disposal methods; or 4) fire, explosion, or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Construction activities associated with the proposed Project may involve the routine transport, use, or disposal of hazardous materials, such as petroleum-based fuels or hydraulic fluid used for construction equipment. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for hazards associated with the transport and use of hazardous materials. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

The Project does not involve the use or storage of hazardous substances other than limited quantities of hazardous materials such as solvents, fertilizers, pesticides, and other materials used for regular household maintenance of buildings and landscaping by homeowners and the Home Owner Association (HOA). The quantities of these materials would not typically be at an amount that would pose a significant hazard to the public or the environment. While the risk of exposure to hazardous materials cannot be eliminated, measures can be implemented to reduce risk to acceptable levels. Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials, and the safety procedures mandated by applicable federal, State, and local laws and regulations, which would ensure that risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with implementation of the proposed Project would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact with Mitigation Incorporated.

Phase I ESA (2019)

A Phase I ESA (included as Appendix E), was prepared to identify adverse environmental conditions, including historical recognized environmental conditions (HRECs) and controlled recognized environmental conditions (CRECs) that may exist on the Project site's two northern parcels (APNs 6204-025-900 and -901). For purposes of this discussion, the two parcels that are the subject of the Phase I ESA are herein referred to as "northern parcels." It is noted that the Project site also includes APN 6204-025-

902, which is considered an adjacent property for purposes of the Phase I ESA and herein referred to as the "southern parcel". The term recognized environmental conditions (RECs) refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment.

Existing Site Conditions/Site Reconnaissance

As part of the Phase I ESA, a site reconnaissance was conducted of the northern parcels, which focused on observation of current conditions and observable indications of past uses and conditions that may indicate the presence of a REC. The Project site is located in an area primarily comprised of commercial and residential land uses. Properties in the vicinity include hotels, restaurants, single-family residences, retails stores, and grocery stores. The northern parcels were observed to be developed with a paved parking lot and vacant/undeveloped land; no structures are located within the northern parcels. No above- or below-ground storage tanks, drums, hazardous substances or petroleum products, containers, pools of liquid, or transformers were identified within the northern parcels. Additionally, no gas transmission pipelines or hazardous liquid pipelines are located on the two northern parcels or adjacent properties.

Records Review

As part of the Phase I ESA, historical sources of information were reviewed to develop the history of the northern parcels and surrounding area in order to evaluate if past uses may have resulted in RECs.

Review of records and documents indicate the northern parcels were vacant from 1896 through 1925. A small commercial restaurant/bar was located on the southeastern corner from 1928 through 2006; the onsite structure was demolished in 2006/2007. A paved parking lot (on the northernmost parcel) has been present from 1952.

A regulatory agency database search report was obtained from EDR, a third-party environmental database search firm (refer to Appendix E for complete copy of the report). The northern parcels were not listed on any regulatory databases reviewed. Information from the database was also reviewed to evaluate the potential for conditions on adjacent or nearby sites to pose a REC, CREC, or HREC for the northern parcels. Two properties were identified as having potential environmental concerns to the northern parcels. These include the southern parcel (Argos Auto Repair) located at 9019 Long Beach Boulevard and a nearby release site (ARCO) located at 8907 Long Beach Boulevard.

Additional environmental records were reviewed for the two properties and are summarized below:

- Argos Auto Repair (9019 Long Beach Boulevard). This property comprises the southern parcel of the Project site. The property is identified as a small quantity generator of hazardous waste. No violations were noted in the EDR report. A review of historical documents indicates automotive greasing and "gas & oil" facility in 1950 and automotive repair from 1970 through 2000. During the 2017 site visit, the property was observed to be in use as an automotive repair shop. No known documented releases associated with this site were identified. However, based on the proximity to the northern parcels, the reported groundwater flow direction (to the north-northwest, towards the northern parcels), and duration of the automotive facility (over 50 years), the Phase

I ESA determined that if an undocumented release has occurred, there is the potential for contamination (if any) to be migrating beneath the northern parcels.

- ARCO (8907 Long Beach Boulevard). This property is located approximately 215 feet northeast of the northern parcels. The site was listed in several regulatory databases. A Request for Closure Letter prepared by Stantec, dated August 20, 2008, indicates remediation activities have occurred since 1992 and on December 14, 2009, the Los Angeles Regional Water Quality Control Board confirmed completion of the site investigation and correction action for the Underground Storage Tanks (USTs) formerly located at the site. Based on Based on the documented groundwater flow direction (away from the northern parcels) and the distance from the northern parcels (over 200 feet), the Phase I ESA concludes the ARCO site is not expected to be affecting the soil or groundwater beneath the northern parcels.

The Phase I ESA identified the Argos Auto Repair property (the southern parcel) as having the potential for petroleum hydrocarbon-impacted soil or groundwater plumes within 30 feet of the northern parcels. Additionally, review of historical documents indicates the properties located at 8934 Long Beach Boulevard and 9000 Long Beach Boulevard were developed with gasoline service stations from 1928 through 1947 and from 1950 through 1970, respectively. Although there are no known documented relates associates with the sites, if an undocumented release has occurred, the Phase I ESA concludes there is the potential for contamination (if any) to be migrating beneath the northern parcels. Therefore, the adjacent automotive repair facility (the southern parcel) and the historical gasoline stations are considered a Potential REC. The Phase I recommends a soil vapor survey be conducted.

Phase II ESA (2019)

A Phase II ESA (included as Appendix E) was prepared for the Project site (9001, 9015, and 9019 Long Beach Boulevard) to determine if the potential REC identified in the findings of the Phase I ESA, conducted at 9001 and 9015 Long Beach Boulevard, has impacted the Project site.

Five borings to a depth of five feet bgs were performed at 9001 and 9015 Long Beach Boulevard. Temporary soil vapor probes were installed in all five borings to a depth of five feet bgs. Soil vapor samples were collected and analyzed for volatile organic compounds (VOCs) by EPA method 8260. No VOCs were detected in any of the soil vapor samples collected; no additional assessment was recommended for the parcels at 9001 and 9015 Long Beach Boulevard.

Five borings to a depth of five feet below ground surface (bgs) were performed at 9019 Long Beach Boulevard. Soil samples were collected at 0.5 and 5.0 feet bgs and analyzed for total petroleum hydrocarbons (TPH) by EPA Method 8015, and CAM 17 Metals by EPA Method 6010B/7471A/7470A. Following the soil matrix sampling, temporary soil vapor probes were installed to a depth of five feet bgs. Soil vapor samples were analyzed for VOCs. No VOCs were detected in any of the soil vapor samples collected. However, based on the metals results of the soil-matrix sampling effort, eight additional soil borings were conducted at the site. The borings were advanced to five feet bgs, and samples were collected at 1, 3 and 5 feet bgs. The samples from 1 and 3 feet bgs from select borings were analyzed for metals and TPH; the 5-foot samples were held pending the shallow analyses.

With the exception of arsenic, lead, and thallium none of the metals detected in the soil matrix samples analyzed exceeded their respective screening levels. Arsenic was detected at concentrations exceeding screening levels; however, the detected concentrations were within naturally occurring background concentrations in California soils.

Lead was detected in all the samples analyzed from the parcel at 9019 Long Beach Boulevard, at concentrations ranging from 1.34 milligrams per kilogram (mg/kg) to 1,600 mg/kg. Concentrations of lead detected in three samples were above the level for performing soluble threshold limit concentration (STLC) tests. Two of the three STLC tests were above 5 milligrams per liter (mg/L), classifying the soil in those locations as California, non-RCRA hazardous waste. One sample had a detected lead concentration of 1,600 mg/kg, which classifies it as a California non-RCRA hazardous waste. The sample had a toxicity characteristic leaching procedure (TCLP) for lead of 0.801 mg/L; therefore, the sample is not considered RCRA hazardous waste.

Thallium was detected above the residential ESL in 8 of the 18 soil matrix samples analyzed.

TPH as gasoline (TPHg) was not detected in any of the soil matrix samples analyzed from the parcel at 9019 Long Beach Boulevard. TPH as diesel (TPHd) was detected in two samples at 3.03 mg/kg and 6 mg/kg, below screening levels. TPH as oil (TPHo) was detected in 8 samples analyzed, from 5.53 mg/kg to 10,000 mg/kg. One concentration of TPHo was detected at a concentration equaling the Los Angeles Regional Water Quality Control Board (LARWQCB) soil screening level (SSL) for soil between 20 and 150 feet above groundwater.

Since the elevated lead levels have not been delineated laterally, the Phase II ESA recommends additional step out borings be conducted at the 9019 Long Beach Boulevard parcel to delineate the horizontal extent of elevated lead in shallow soils. The Phase II ESA also recommends future metals testing be performed to report thallium levels using EPA Method 6020. Although TPHo concentrations equaled the LARWQCB SSL at one location, the area of elevated TPHo appears to have been delineated. Therefore, the Phase II ESA recommends excavating the soil in the vicinity of the boring and disposing of it offsite if the 9019 Long Beach Boulevard site is redeveloped.

Additional Phase II ESA (2020)

An Additional Phase II ESA was conducted to delineate the elevated lead at the site. A total of 10 borings were advanced to a depth of 5 feet bgs and soil samples were collected at 1, 3, and 5 feet bgs. A total of 20 soil samples were collected and analyzed for total lead by EPA Method 6010B and TPH-Oil by EPA Method 8015M. Samples were also screened for VOCs in the field; no VOC detections were observed.

Lead was detected in all the samples analyzed, with reported concentrations ranging from 5.8 mg/kg to 102 mg/kg. Of the 20 samples analyzed, one reported at concentrations that exceeded either the commercial or residential ESL for lead. Since two of the detected concentrations of total lead exceeded 10-times the associated Soluble Threshold Limit Concentration (STLC), which is used for determining hazardous waste characterization in California, an STLC extraction was completed and analyzed to evaluate the soluble component of lead in the samples.

Concentrations of total lead detected in two samples were above the level for performing STLC tests. One of the two STLC tests was above 5 mg/L, classifying the soil in that location as California, non-RCRA hazardous waste. The previous assessment soil samples had a TCLP for lead of 0.801 mg/L at a nearby sampling location; therefore, the Additional Phase II ESA determined soil in this vicinity would not be considered a RCRA hazardous waste if excavated.

TPH as oil was detected in 16 of the 20 samples analyzed with reported concentrations ranging from 32 mg/kg to 2,100 mg/kg. All concentrations of TPHo were below the LARWQCB SSL of 10,000 mg/kg for soil

between 20 and 150 feet above groundwater. The area of TPHo exceeding soil screening criteria appears to have been delineated and is limited to one location on the site at a depth of 0.5 feet bgs.

Based on the findings of the Additional Phase II ESA, it was determined that lead concentrations are elevated at levels above the ESL for residential properties in shallow soils in 4 of the 22 soil sampling locations at the Project site. Lead concentrations are elevated at levels that would be considered California Non-RCRA hazardous waste in four of the 22 sample locations for the purposes of disposal. Based on the site assessments completed, the lead contamination is vertically and laterally delineated and appears to be concentrated in the top one foot of the site in the southern portion of the property. The estimated volume of lead-impacted soil in the area is approximately 250 cubic yards, encompassing approximately 150 cubic yards of soil exceeding the environmental screening limit for residential properties, and approximately 100 cubic yards which would be considered California Non-RCRA hazardous waste if excavated.

Detections of thallium in eight of the 18 soil samples analyzed were present at levels exceeding the Residential ESL. According to the Additional Phase II ESA, this is often an artifact of the EPA Method 6010 analytical methodology. Therefore, the Additional Phase II ESA recommends thallium be tested by EPA Method 6020 during remediation activities to verify the concentration of thallium at the site.

The Additional Phase II ESA also recommends that prior to redevelopment, the City consider coordination with a regulatory agency for voluntary overside of the remediation of lead and TPH impacts at the Project site. A Soil Management Plan is also recommended to guide soil handling associated with redevelopment activities.

Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) EnviroStor database identifies the southern parcel (9019 Long Beach Boulevard) as an Active Cleanup site under Voluntary Agreement. An Equitable Community Revitalization Grant (ECRG) was awarded to assist with funding environmental cleanup activities at the Project site to allow for potential residential development. A Final Preliminary Endangerment Assessment (PEA) Work Plan was prepared by Tetra Tech on behalf of the Project applicant, in accordance with the Standard Voluntary Agreement executed between the applicant and the DTSC on March 30, 2022. The Final PEA Work Plan proposed additional soil and soil vapor sampling to fill data gaps identified by the previous Phase II ESAs. DTSC approved the Final PEA Work Plan on June 3, 2025. Additional coordination between the Project applicant, SCS Engineers, and DTSC resulted in a revised sampling scope of work (referred to as the Revised Workplan) that was approved by DTSC on October 6, 2025.

In October 2025 additional soil and soil vapor samples were collected at the site with oversight provided by DTSC in accordance with the Revised Workplan. A total of 101 soil samples from 41 soil borings were collected and submitted for analysis for chemicals of potential concern (COPCs). The COPCs included VOCs, lead, and thallium.

A total of 15 soil samples were submitted for analysis of VOCs. Analysis of the samples was put on hold pending the VOC results of the corresponding soil vapor samples. Following the detection of VOCs in soil vapor samples, discussed further below, the soil samples were analyzed. All concentrations reported were well below their respective residential screening levels/regional screening levels. A total of 77 soil samples (including duplicates) were collected and submitted for lead analysis. Seven primary sample locations had

lead concentrations exceeding the DTSC residential screening limit of 80 mg/kg; one field duplicate also exceeded the screening limit at 247 mg/kg, while the corresponding primary sample result was 17.1 mg/kg. A total of nine soil samples (including one duplicate) were collected and submitted for the analysis of thallium. Thallium was detected in five samples reported with a value less than the reporting limit but greater than or equal to the method detection limit MDL and reported as an approximate value. All concentrations reported were below the residential DTSC screening limit of 0.78 mg/kg.

Temporary dual-depth soil vapor probes were installed on October 27, 2025. Soil vapor sampling was conducted on October 29, 2025, January 15, 2026, and March 5, 2026. During the October 2025 sampling event, a total of 15 soil vapor samples (including one replicate) were collected. A second sampling event was conducted in January 2026 to account for seasonal variability in soil vapor concentrations. During the second event, a total of 12 soil vapor samples were collected; however, one soil vapor probe could not be located and there was no flow from another probe. Following review of the results and discussion with DTSC, SCS conducted a third sampling event on March 5, 2026, to resample three of the soil vapor probes. During the three sampling events (October 2025, January 2026, and March 2026), a total of 30 soil vapor samples (including three quality control replicate samples) were collected at seven probe locations. A total of 15 VOCs were detected in soil vapor at the Project site. Four VOCs (benzene, tetrachloroethylene [PCE], trichloroethylene [TCE], and chloroform) were detected at concentrations above their respective DTSC recommended residential screening levels. Chloroform was detected above the residential screening level of 4 µg/m³ in one sample (SV17-15, January 2026 event) at 8.8 µg/m³. Based on detection frequency and concentration, benzene, PCE, and TCE are the primary COPCs for the soil vapor pathway.

Benzene was detected in five samples at concentrations ranging from 4.9 µg/m^3 to 19 µg/m^3. The five samples were above the DTSC recommended residential screening level using a 0.03 attenuation factor (3.2 µg/m^3). PCE was detected in 23 samples at concentrations ranging from 8.2 µg/m^3 to 57 µg/m^3. Nineteen samples exceeded the residential screening level of 15 µg/m³ (attenuation factor = 0.03). TCE was detected in two samples with concentrations of 6.6 µg/m^3 and 23 µg/m^3. The 23 µg/m^3 detection (SV12-15) exceeded the residential screening level of 16 µg/m³ (attenuation factor = 0.03). The 6.6 µg/m³ detection (SV12-5) was below the screening level.

Based on the additional soil investigation performed at the Project site, VOCs were detected in soil below the applicable screening levels/regional screening levels. Re-sampling of locations where thallium had previously exceeded the residential environmental screening level indicated the prior results were in error; the highest thallium detection during the current investigation was well below the residential screening level.

Of the metals analyzed, only lead exceeded the applicable screening level and is considered a COPC. Lead was detected above the DTSC residential screening level of 80 mg/kg at seven primary sample locations and one field duplicate location. Lead exceedances were limited to the shallow 1-foot samples; none of the 3-foot samples exceeded the DTSC residential screening limit. These results indicate shallow, localized lead impacts in the near-surface soils.

Overall, soil vapor concentrations were generally low. Benzene, PCE, TCE, and chloroform exceeded DTSC residential screening levels calculated using an attenuation factor of 0.03. Based on concentration and frequency, benzene, PCE, and TCE are the primary COPCs for the soil vapor pathway at the Project site.

Prior to the issuance of permits for demolition and grading, the Project applicant would be required to perform remediation activities as specified in the Voluntary Agreement in accordance with applicable

local, State, and federal statutes, regulations, ordinances, rules, and guidance documents, in particular, Health and Safety Code section 25300 et seq., as amended. Remediation activities would occur under DTSC oversight.

As part of the Voluntary Agreement Scope of Work, a Removal Action Workplan (RAW) and Soils Management Plan (SMP) would be prepared for approval by DTSC identifying the onsite contamination, goals to be achieved by the removal action, recommended alternative, Sampling and Analysis Plan, and Health and Safety Plan to be followed during the remedial excavation and transportation activities (Mitigation Measure HAZ-1). Removal, transportation, and disposal of impacted soil would be performed in accordance with applicable federal, State, and local laws, regulations, and ordinances.

Excavation of contaminated material would involve the removal of non-hazardous waste soil, non-RCRA and potentially RCRA waste soil requiring disposal at both a class III and class I landfill, respectively. Onsite excavation activities would be monitored and samples would be collected to determine the limits of excavation and ensure successful removal of contaminated soils under DTSC oversight. Contaminated soil would be disposed of at a disposal facility. The findings of the remedial excavation would be presented in a remedial action completion report that includes soil sample data tables and figures confirming completion of remediation activities for approval by DTSC (Mitigation Measure HAZ-2).

On-Site Structures

Given the age of the existing building on the Project site (constructed in 1941), the presence of lead-based paint (LBP) and asbestos-containing materials (ACMs) is considered likely. As a result, construction workers and the public could be exposed. Further, the potential exists that construction activities may release potential contaminants that may be present in building materials (e.g., mold, lead, etc.). Federal and State regulations govern the renovation and demolition of structures where ACMs and LBPs are present. All demolition that could result in the release of ACM or LBPs must be conducted according to Federal and State standards, including but not limited to, California Health and Safety Code Sections 17920.10 and 105256. The National Emission Standards for Hazardous Air Pollutants mandates that building owners conduct an asbestos survey to determine the presence of ACMs prior to the commencement of any remedial work, including demolition (Mitigation Measure HAZ-3). If ACM material is found, abatement of asbestos would be required prior to any demolition activities. If paint is separated from building materials (chemically or physically) during demolition of structures, the paint waste would be required to be evaluated independently from the building material by a qualified Environmental Professional If LBP is found, abatement would be required to be completed by a qualified Lead Specialist prior to any demolition activities. The Project would be required to comply with Mitigation Measures HAZ-3 and HAZ-4, as well as SCAQMD Rule 1403, regarding the potential for LBP and ACMs.

CONCLUSION

Based on the results of the site investigations described above, the Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazard materials into the environment. On-site remediation activities would be required to ensure removal of contaminated soil in order to allow for development of the site with proposed residential uses. As stated, site remediation activities would occur under the oversight of DTSC. Mitigation Measure HAZ-1 would require submittal of a Removal Action Work Plan and Soils Management Plan, approved by DTSC, prior to excavation or grading specific to remediation activities. Mitigation Measure HAZ-2 would require submittal of a Remedial Action Completion Report, approved by

DTSC, confirming completion of remediation activities that would allow for development of the site with residential uses. Mitigation Measures HAZ-3 and HAZ-4 would ensure the proper handling of potential asbestos and lead-based paint associated with the on-site structure. With implementation of Mitigation Measures HAZ-1 through HAZ-4, the Project's potential impact concerning the creation of a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant.

Mitigation Measures:

HAZ-1 Prior to issuance of permits for demolition and grading, the Project Applicant shall submit a Removal Action Workplan (RAW) and Soils Management Plan (SMP), or similar documentation, approved by the Department of Toxic Substances Control to the City of South Gate Community Development Department. Issuance of permits for demolition and grading by the City shall be limited to soil excavation and remediation activities in accordance with the Removal Action Workplan (RAW) and Soils Management Plan (SMP) or similar documentation, as approved by the Department of Toxic Substances Control.

HAZ-2 Upon completion of remediation activities and prior to issuance of permits for additional grading beyond what may be required for soil excavation or remediation activities in accordance with Department of Toxic Substances Control requirements, the Project Applicant shall submit a Remedial Action Completion Report, or similar documentation, approved by the Department of Toxic Substances Control, demonstrating completion of on-site remediation activities that would allow for development of the site with residential uses to the City of South Gate Community Development Department.

HAZ-3 Prior to demolition activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and California Division of Occupational Safety and Health (Cal/OSHA) certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). The sampling method to be used shall be based on the statistical probability that construction materials similar in color and texture contain similar amounts of asbestos. In areas where the material appears to be homogeneous in color and texture over a wide area, bulk samples shall be collected at discrete locations from within these areas. In unique or nonhomogeneous areas, discrete samples of potential ACMs shall be collected. The survey shall identify the likelihood that asbestos is present in concentrations greater than 1 percent in construction materials. If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard.

Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403. Common asbestos abatement techniques involve removal, encapsulation, or enclosure. The removal of asbestos is preferred when the material is in poor physical condition and there is sufficient space for the removal technique. The encapsulation of asbestos is preferred when the material has sufficient resistance to ripping, has a hard or sealed surface, or is difficult to reach. The enclosure of asbestos is to be applied when the material is in perfect physical condition, or if the material cannot be removed from the site for reasons of protection against fire, heat, or noise.

HAZ-4 If paint is separated from building materials (chemically or physically) during demolition of the structure, the paint waste shall be evaluated independently from the building material by a

qualified Environmental Professional. A portable, field X-ray fluorescence (XRF) analyzer shall be used to identify the locations of potential lead paint, and test accessible painted surfaces. The qualified Environmental Professional shall identify the likelihood that lead is present in concentrations greater than 1.0 milligrams per square centimeter (mg/cm2) in/on readily accessible painted surfaces of the buildings.

If lead-based paint is found, abatement shall be completed by a qualified Lead Specialist prior to any activities that would create lead dust or fume hazard. Potential methods to reduce lead dust and waste during removal include wet scraping, wet planning, use of electric heat guns, chemical stripping, and use of local High Efficiency Particulate Air (HEPA) exhaust systems. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City Engineer.

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

No Impact. The Project is located approximately 0.7-mile east of Willow Elementary School. The Project proposes a residential development, which would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact With Mitigation Incorporated. Government Code Section 65962.5 refers specifically to a list of hazardous waste facilities compiled by the DTSC. A portion of the Project site (9019 Long Beach Boulevard) is identified on DTSC's EnviroStor database as a voluntary cleanup site. As discussed in Response 4.9(b), the Project site has undergone several site investigations and DTSC is currently providing regulatory oversight. Mitigation Measure HAZ-1 would require submittal of a Removal Action Work Plan and Soils Management Plan, approved by DTSC, prior to excavation or grading specific to remediation activities. Mitigation Measure HAZ-2 would require submittal of a Remedial Action Completion Report, approved by DTSC, confirming completion of remediation activities that would allow for development of the site with residential uses. Mitigation Measures HAZ-3 and HAZ-4 would ensure the proper handling of potential asbestos and lead-based paint associated with the on-site structure. With implementation of Mitigation Measures HAZ-1 through HAZ-4, the Project's potential impact concerning the creation of a significant hazard to the public or the environment would be less than significant.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-4.

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

No Impact. The Project site in not located within an airport land use plan, nor is the Project site located within two miles of a public airport or public use airport. Thus, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The City of South Gate Emergency Operations Plan (EOP) addresses the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The City's EOP establishes the emergency organization, assigns tasks, and specifies policies and general procedures. The EOP is designed to include South Gate in the overall California Standardized Emergency Management System (SEMS), which provides a framework for coordinating multi-agency responses in the case of emergencies. In the event of an emergency, first responders would coordinate any emergency response or emergency evacuation activities within the City.

Long Beach Boulevard provides direct access to the Project site and according to the South Gate General Plan Safety Element is an Evacuation Route, providing primary evacuation and emergency access within the area. The South Gate General Plan Mobility Element identifies Long Beach Boulevard as a Boulevard (Primary Arterial). According to the Mobility Element, Boulevards are multi-modal streets that serve as key transit corridors, emergency response routes, and may also serve as truck routes. The construction and operation of the proposed Project would not place any permanent physical barriers on Long Beach Boulevard. There is the potential that traffic lanes located immediately adjacent to the Project site may be temporarily closed or controlled by construction personnel during construction activities. Any temporary closure would be required to receive permission from the City. However, this would be temporary and emergency access to the Project site and surrounding area would be required to be maintained along Long Beach Boulevard at all times. Additionally, all construction staging would occur within the boundaries of the Project site and would not interfere with circulation along Long Beach Boulevard, Willow Place, or any other nearby roadways.

The Project site is currently accessed from three driveways on Long Beach Boulevard and one driveway on Willow Place. Access to the Project site is proposed from two driveways, one located on Willow Place and one located on Long Beach Boulevard. A private interior driveway system, consistent with Los Angeles County Fire Department (LACoFD) access requirements, would provide access to the individual townhome units. Prior to the issuance of a building permit, the applicant is required to submit appropriate plans for plan review to ensure compliance with zoning, building, and fire codes. LACoFD would review the Project for access requirements, minimum roadway widths, fire apparatus access roads, fire lanes, signage, and access walkways, among other requirements to ensure adequate emergency access would be provided to and within the Project site. The Project would be required to comply with all applicable Building and Fire Code requirements and would submit construction plans to the Fire Department's Engineering Building Plan Check Unit for review and approval prior to issuance of any building permit. Approval by the

Fire Department would ensure that Project construction and operation would not impair implementation of or physically interfere with an emergency evacuation plan and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The Project site is located within an urbanized area. The Project site and surrounding area are not within or located adjacent to any wildlands or areas identified as being at risk of wildland fires. Therefore, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Mitigation Measures: No mitigation measures are required.

6.10 Hydrology and Water Quality

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
1) Result in substantial erosion or siltation on- or off-site?			X	
2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	
3) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
4) Impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact.

Short-Term Construction

Short-term construction activities associated with the proposed Project could impact water quality. Sources of potential construction-related storm water pollution include handling, storage, and disposal of construction materials containing pollutants; maintenance and operation of construction equipment; and site preparation activities, such as excavation, grading, and trenching. These sources, if not controlled, can generate soil erosion and on- and off-site transport via storm run-off or mechanical equipment. Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other vehicle-related fluids on the Project site are also common sources of storm water pollution and soil contamination. Implementation of the proposed Project has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers, and sanitary wastes, fuel, and lubricants. Generally, standard safety precautions for handling and storing construction materials can adequately reduce the potential pollution of storm water by these materials. These types of standard procedures can be extended to non-hazardous storm water pollutants such as sawdust, concrete washout, and other wastes.

Construction activities would include demolition, site preparation, grading, building construction, and paving, architectural coating, and landscaping. Before construction activities commence on the site, remedial excavation of impacted soil at the Project site would occur. The remedial excavation would involve removal, transport, and disposal of contaminated soil. No off-site excavation would be performed; refer to Section 6.9, *Hazards and Hazardous Materials*, for additional information regarding site characterization and remediation.

Grading activities would displace soils and temporarily increase the potential for soils to be subject to wind and water erosion. Two general strategies are recommended to prevent soil materials from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed, and secondly, the Project site should be secured to control off-site transport of pollutants. In order to reduce the amount of on-site exposed soil, grading would be limited to the extent feasible, and any graded areas would be protected against erosion once they are brought to final grade. Furthermore, development associated with implementation of the proposed Project would be required to comply with the City of South Gate Municipal Code and all State and federal laws regulating or pertaining to stormwater management and runoff.

Construction activity subject to the NPDES program's Construction General Permit includes any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than 1.0 acre. The Project would disturb approximately 0.66 acres and therefore would not be subject to the General Permit. However, the Project would be subject to South Gate Municipal Code Chapter 6.67*, Storm Drains*. Chapter 6.67 is intended to protect the public health, welfare and safety and to reduce the quantity of pollutants being discharged to the waters of the United States through: "the elimination of non-stormwater discharges to the municipal separate stormwater system; the elimination of spillage, dumping and disposal of pollutants into the municipal separate storm sewer system; the reduction of pollutants in

stormwater discharges to the maximum extent practicable; the protection and enhancement of the quality of the waters of the United States in a manner consistent with the provisions of the Clean Water Act; and the reduction and contribution of pollutants from the MS4 through interagency coordination." Municipal Code Section 6.67.030, *Pollutant source reduction*, states that "all persons engaged in construction activity within the City shall operate in compliance with all State and federal laws regulating or pertaining to stormwater management and runoff; proof of compliance may be required by the director of community development or building official prior to the issuance of any grading, building or occupancy permit or any other type of permit or license issued by the City." Further, Section 6.67.030 requires qualifying project applicants to reduce stormwater runoff containing sediment, construction waste, or other pollutants from construction through implementation of Best Management Practices (BMPs). BMPs established in this section include:

- Retaining sediment, construction waste, and other pollutants from construction activities on the construction site to the maximum extent practicable;
- Utilizing Structural controls such as sediment barriers, plastic sheeting, detention ponds, dikes, and filter berms to the maximum extent practicable in order to minimize the escape from the site of sediment and other pollutants;
- Minimizing the amount of sediments running onto the street, drainage facilities, or adjacent properties by strategically locating all excavated soil on site;
- Not washing of construction or other vehicles adjacent to a construction site;
- Situating trash receptacles at convenient locations on construction sites, and maintaining receptacles in such a manner that trash and litter do not accumulate; and
- Controlling erosion from slopes and channels.

Compliance with South Gate Municipal Code requirements would ensure the Project's construction-related activities would not violate any water quality standards or otherwise substantially degrade surface or groundwater quality, resulting in a less than significant impact.

Long-Term Operations

The Project site contains both pervious and impervious surfaces. The two northern vacant parcels are a mix of impervious and pervious surfaces, while the southern parcel is completely paved and developed with an auto repair shop. The Project proposes a multi-family residential development with primarily impervious surfaces with the exception of proposed landscaping. As the site would remain largely impervious, stormwater runoff is not anticipated to change substantially in the proposed condition. Anticipated pollutants from the residential component of the Project are nutrients, pesticides, sediments, trash, and debris. Potential pollutants from parking lot areas include heavy metals, trash and debris and oil and grease. As stated, South Gate Municipal Code Chapter 6.67, *Storm Drains,* establishes the requirements to protect water quality. In accordance with the requirements of Chapter 6.67 of the Municipal Code, the Project applicant would be required to submit an LID plan to the Department of Community Development prior to the submittal of an application for the first planning or building approval for a new development project. The LID plan would include measures designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by controlling runoff from impervious surfaces through infiltration, evapotranspiration, bio-retention and/or rainfall harvest and use. The Project applicant would be required to implement the set LID standards and BMPs for stormwater pollution mitigation and provide documentation to demonstrate compliance with the municipal NPDES permit on the plans and permit application submitted to the City.

The Project proposes to place an on-site stormwater capture system (dry well system) under the driveway behind the units. The system would meet LID requirements and would discharge to Long Beach Boulevard. All runoff from the site would be tributary to the proposed onsite dry well system.

Compliance with NPDES and South Gate Municipal Code requirements, which include implementation of a LID Plan and associated BMPs, would ensure that Project operations would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The following discussion based on the *2020 Urban Water Management Plan City of South Gate* (2020 UWMP), prepared by SA Associates, dated June 2021.

The South Gate Water System serves the entirety of the City, including the Project site, with the exception of the Hollydale area, which is served by Golden State Water Company. The City receives its water from two main sources, groundwater from the Central Groundwater Basin (Basin) and recycled water from Central Basin Municipal Water District (CBMWD). The City's Allowed Pumping Allocations (APA) from the Central Basin is 11,183 acre-feet (AF). The City often leases a portion of these allocations to other water uses in the Basin, currently for FY 2021/22 the City leased 1,900 AF to the cities of Cerritos and Compton. The City can also acquire imported water from Metropolitan Water District of Southern California (MWD) through CBMWD, but has not done so in several years. Further, the City has five interconnections with adjacent water systems; these interconnections are with the City of Downey, the City of Lynwood, the Walnut Park Mutual Water Company, the City of Huntington Park, and the Southern California Water Company (SCWC). Each is a two-way connection, allowing water transfers to or from the City, depending upon the given emergency situation and the relative pressures on each side of the interconnections.[28]

Approximately 90 percent of the City's water demand is single and multi-family residential, while the remaining 10 percent of total demand is comprised of commercial, institutional, and industrial. The City is built out and expects minor changes in population into the future. Table 2.2 of the 2020 UWMP indicates a 2020 service population of 79,817, and an estimated 2040 service population of 80,495. The total water demand for the City service area was over 8,500 AF of potable water in 2020. The minimum required City 2015 interim water use target was 101 gallons per capita day (GPCD), and the 2020 final water use target was 100 GPCD. At the time of the UWMP adoption, the City's baseline water use was 102 GPCD, which was obtained from the 10-year period January 1, 2001, to December 31, 2010. In 2020, the City had a per capita water use of 88.8 GPCD, which is below the 2015 interim target and also below its 2020 final water use target.[29]

The South Gate Water System provides potable drinking water to its customers via 10 groundwater wells (only 8 wells are active: Well Nos. 14, 18, 19, 24, 26, 27, 28, and 29), and recycled water supply through

[28] SA Associates, *2020 Urban Water Management Plan (UWMP) for the City of South Gate,* June 2021.
[29] Ibid.

the CBMWD's recycled water system comprised by two systems: E. Thornton Ibbetson Century System and Esteban E. Torres Rio Hondo Water Recycling System. All of the City's groundwater wells are located along the Central Groundwater Basin. The active wells have a combined rated/tested capacity of about 13,500 gallons per minute (gpm), or 19.4 million gallons per day (mgd). All groundwater wells, except Well No. 29, discharge into onsite reservoirs prior to feeding the water distribution system through booster pump stations. Well No. 29 discharges directly into the distribution system through variable speed pumps based on the demand. Between 2014 to 2020, groundwater extraction ranged from approximately 7,400 AF to over 8,300 AF (average of 8,025 AF).[30]

In addition to wells, the City currently utilizes several storage tank/booster pump station sites for water supply and storage. There are six sites containing storage reservoirs, two of which are inactive. The inactive tank sites (Santa Fe and Salt Lake) are both elevated tanks that are no longer in service. The four active tanks/ booster pumps include: Hawkins, South Gate Park, West Side, and Elizabeth. Hawkins booster pump station consists of four vertical turbine pumps (including one standby unit), with a total flow capacities of 9,500 gpm. The South Gate Park and West Side booster pump stations both have a total capacity of 12,000 gpm, and the Elizabeth booster pump has a total capacity of 4,500 gpm. The combined capacity of all storage tanks (14.3 mgd) is greater than the total required storage (12.7 mgd). Because the City currently meets storage requirements with existing tanks, construction of new storage tanks has been determined to be unnecessary.[31]

To protect groundwater resources, the City is a member of the Gateway Regional Alliance formed by the Gateway Integrated Regional Water Management (Gateway IRWM) group. This regional alliance consists of 12 retail agencies as described in CBMWD's 2020 UWMP. The regional water use target is the weighted average of the individual retail agencies' targets (by population). The Gateway Regional Alliance ten-year baseline is 128 GPCD; the weighted 2015 target is 120 GPCD and the 2020 target is 111 GPCD. As discussed, the City's 2020 GPCD was 88.8, indicating that the City is within Gateway Regional Alliance target goal range.[32]

In addition, the City of South Gate has adopted Ordinance No. 2263 to respond to water shortages. This Ordinance amends South Gate Municipal Code Chapter 6.64, *Water Conservation Ordinance*, regarding the implementation of water conservation measures. This ordinance authorizes the City Council to protect the public health, safety, and welfare when it is determined there will be a water shortage. The City Council will determine by resolution the water conservation plan. The City is also a participant in the Member Agency Response System (MARS), which was developed by MWD for its members' agencies. The MARS network was developed in a coordinated effort to improve emergency response and expedite mutual aid to participating agencies.[33]

Further, the City has adopted permanent water restrictions to help conserve water. Pursuant to March 28, 2022, Executive Order N-7-22 issued by Governor Newsom, the State Water Resources Control Board adopted an Emergency Regulation to Reduce Water Demand by 10 to 20 percent and Improve Water Conservation during the current drought. The City Council held a public hearing and adopted a resolution

[30] Ibid.
[31] Kennedy/Jenks Consulting, *City of South Gate Water Master Plan*, June 2019.
[32] SA Associates, *2020 Urban Water Management Plan (UWMP) for the City of South Gate,* June 2021.
[33] Ibid.

declaring a Level 2 water supply shortage per Municipal Code on June 28, 2022. The South Gate Public Works Department established mandatory watering restrictions for residents.

The adjudicated Central Basin would continue to be subject to the maximum allowed pumping allocation for groundwater extraction. Continued diligence by the pumpers is expected to ensure the reliability of the Central Basin groundwater supplies. Therefore, the Project would not substantially deplete groundwater supplies.

The Project site contains both pervious and impervious surfaces. The two northern vacant parcels are a mix of impervious and pervious surfaces, while the southern parcel is completely paved and developed with an auto repair shop. While the existing site has some pervious surfaces, the site is not relied on for groundwater infiltration. The proposed Project would include new development that would be primarily impervious surfaces with pervious surfaces consisting of landscaping. Stormwater runoff is not anticipated to change substantially in the proposed condition as the site would continue to be primarily impervious. During final engineering, impervious area for the proposed condition would be calculated in greater detail based on the finalized landscape plan. The proposed Project would not significantly change the amount of impervious area when compared to existing conditions, potentially reducing groundwater recharge through infiltration.

As discussed above, the Project proposes an onsite drywell system to treat stormwater. An on-site stormwater capture system (dry well system) would be placed under the driveway behind the units. The system would meet low impact development (LID) requirements and would discharge to Long Beach Boulevard. Thus, the Project would not interfere substantially with groundwater recharge and impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

1) Result in substantial erosion or siltation on- or off-site?

2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

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

4) Impede or redirect flood flows?

Less Than Significant Impact. Refer to Response 6.10(a) regarding potential impacts involving erosion and water quality.

The City of South Gate, including the Project site, is located within the Coastal Plain of Los Angeles groundwater basin and is considered to be relatively flat. The Project site is in an urbanized area; the City and surrounding area are built-out. The Project proposes 14 two- and three-story residential townhome units. The proposed development includes drive aisles, parking, landscaping, walkways, patios, and a

common open space area. With redevelopment of the Project site, the drainage and topography would not significantly change. As the topography of the site is generally flat, potential flooding hazards are not expected. Under proposed conditions, the water would drain into storm drains in the roadways, as it does now in the current existing condition. A proposed on-site stormwater capture system (dry well system) would be placed under the driveway behind the units. As discussed in Response 6.10(a), Municipal Code Section 6.67.030 requires project applicants to reduce stormwater runoff containing sediment, construction waste, or other pollutants from construction through implementation of Best Management Practices (BMPs). Further, the Project applicant would be required to submit a LID Plan to the Department of Community Development prior to the submittal of an application for the first planning or building approval for a new development project. The LID Plan would include measures designed to control pollutants, erosion, pollutant loads, and runoff volume to the maximum extent feasible by controlling runoff from impervious surfaces through infiltration, evapotranspiration, bio-retention and/or rainfall harvest and use. The Project applicant would be required to implement the set of LID standards and best management practices (BMPs) for stormwater pollution mitigation and provide documentation to demonstrate compliance with the municipal NPDES permit on the plans and permit application submitted to the City. The proposed system would meet LID requirements and would discharge to Long Beach Boulevard.

There are no streams or rivers near the Project site. The Project's proposed storm drain system would capture excess flows generated as a result of the Project's proposed condition; thus, the Project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding, create or contribute runoff that would exceed the capacity of the existing drainage system, or impede or redirect flood flows. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. Tsunamis are sea waves that are generated in response to large-magnitude earthquakes, which can result in coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes that can occur in response to ground shaking. The Project site is approximately 16 miles east of the Pacific Ocean and there are no large bodies of standing water near the Project site. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the Project site is located within an area of minimal flood hazard.[34] As a result, tsunamis and seiches do not pose hazards due to the Project site's inland location and lack of nearby bodies of standing water. The Project site is not located within a flood hazard, tsunami or seiche zones potentially resulting in a release of pollutants due to Project Inundation; impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

[34] Federal Emergency Management Agency (FEMA), *FEMA Flood Map Service Center: Search by Address*, available at https://msc.fema.gov/portal/search?AddressQuery=90019%20long%20beach%20blvd%2C%20south%20gate%2C%20ca#searchresultsanchor , accessed December 6, 2022.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The following discussion based on the *2020 Urban Water Management Plan City of South Gate* (2020 UWMP), prepared by SA Associates, dated June 2021.

Refer to Responses 4.10(a) and 4.10(c), above regarding water quality. As discussed above, the City provides water services to residents. The 2020 UWMP states that the City has eight active groundwater wells that produced approximately 100 percent of the total potable water supply between 2014 and 2020. The City monitors well capacity, status, and water quality. In 2014, the California Sustainable Groundwater Management Act (SGMA) was passed. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California.[35] SGMA requires local agencies to form GSAs for the high and medium priority basins;[36] and, according to the SGMA 2019 Basin Prioritization Report, the Central Basin is a very low priority basin, and therefore is exempt from the GSA requirement.

According to the 2020 UWMP, the Central Groundwater Basin (Basin) adjudication limit (total of the APA of each party) for groundwater extraction across the entire basin is 217,367 acre-feet per year (AFY). The City uses its groundwater wells to extract groundwater from the Basin and has an adjudicated right of approximately 11,183 AF). The City often leases a portion of these allocations to other water uses in the Basin, including but not limited to the Cities of Cerritos and Compton. Water demands within the City's service area between 2014 through 2020 were met by groundwater from the Basin. Annual water use since 2015 has ranged from approximately 7,464 AF to 8,311 AF (average 7,970 acre-feet per year (AFY)), which is less than the allocation of 11,183 AF from the Basin. As the City's groundwater rights are adjudicated, the Project would not conflict with or exceed groundwater supplies or management of the groundwater basins.[37]

The Water Conservation Act of 2009 (SBX7-7) requires increased emphasis on water demand management and requires the State to achieve a 20 percent reduction in urban per capita water use by December 31, 2020; reporting began with the 2010 UWMP. Retail urban water suppliers are required to report their Baseline Daily Per Capita Water Use (Baseline GPCD), 2015 interim Urban Water Use Target, 2020 Urban Water Use Target, and Compliance Daily per Capita Water Use. The Interim Water Use Target for 2015 is set as a halfway point between the Base Daily Water Use GPCD and the 2020 Compliance Water Use Target GPCD; the 2020 Target was 100 GPCD. The South Gate System water use in 2020 was 88.8 GPCD, below the SBX7-7 2015 interim target of 101 GPCD and the 2020 target of 100 GPCD.

[35] California Department of Water Resources, *SGMA Groundwater Management Act (SGMA)*, https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management, accessed December 6, 2022.
[36] California Department of Water Resources, *Sustainable Groundwater Management Act (SGMA),* available at https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management, accessed December 9, 2022.
[37] SA Associates, *2020 Urban Water Management Plan (UWMP) for the City of South Gate,* June 2021.

The Project involves the development of 14 townhome units. As discussed in Section 6.14, *Population and Housing*, the Project is not anticipated to generate significant population growth within the City (approximately 0.05 percent). The 2020 UWMP bases projections on the City's General Plan land uses and projected growth. As the Project is consistent with the General Plan land use and zoning, it is considered to be within the population projections anticipated by the City and the 2020 UWMP. The City would continue to comply with SBx7-7 requirements, which aim to reduce urban water usage. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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6.11 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				X
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

a) Physically divide an established community?

No Impact. The two northern parcels of the Project site contain asphalt in disrepair from a former parking lot and dirt, while the southern parcel (also developed with asphalt) is currently occupied by an auto repair shop. The Project site is surrounded by a mix of industrial, open space, and commercial land uses: hotel and residential uses to the north, hotel and commercial uses to the east, commercial and residential uses to the south, and residential uses to the west. The Project proposes the removal of all existing on-site improvements and structures within the site and construction of 14 two- and three-story attached townhomes in four buildings.

Currently, the site has four vehicle access points: one along Willow Place, and three along Long Beach Boulevard; only one access point along Long Beach Boulevard is being actively used for the auto body shop. Access to the Project site for the Project is proposed from two driveways, one located on Willow Place and one located on Long Beach Boulevard. Pedestrian access would be provided to the individual units from Willow Place and Long Beach Boulevard. A private interior driveway system, consistent with Los Angeles County Fire access requirements, would provide access to the individual townhome units.

The Project would not involve any roadways or significant infrastructure systems that would physically divide the site or separate the site from surrounding uses. Development of the site, as proposed, would provide a continuation of residential uses that occur within the surrounding area. Thus, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. According to the South Gate General Plan 2035 Corridor Map, the Project site is located within the Long Beach Corridor Sub-Area 3. In the Long Beach Corridor Sub-Area 3, Neighborhood Medium-High, Boulevard Medium-High, and Open Space uses are strongly encouraged. Permitted density (excluding any density bonuses) for the land use is 21 to 40 dwelling units per acre with a maximum of four stories. The City of South Gate Zoning Map identifies the zoning for the site as UN (Urban Neighborhood). The UN zone is intended for areas adjacent to or surrounding major community

corridors to provide retail and service uses in a more automotive-oriented setting and to provide buildings that transition to adjacent established neighborhoods. The General Plan Community Design Element illustrates that the Project site is surrounded by Neighborhood Low, Neighborhood Medium, and Commercial land uses. The Project proposes a residential community comprised of 14 two- and three-story attached townhomes in four buildings and associated amenities, which are permitted uses within the UN zone. The Project is consistent with both the General Plan and the Zoning Map.

In accordance with State Density Bonus Law, the project requests the following incentives, concessions, and/or waivers:

- Unit 9 requests a concession of South Gate Municipal Code Section 11.23.050(A), Table 11.23-1, Note 2 due to accessibility clearance constraints;
- Reduce parking area setback;
- Reduce building setback at Unit 10 from 10 feet to five feet;
- Increase fence height to 42 inches at frontage and 72 inches at common area to improve livability next to high traffic corridor; and
- Reduce common open space square footage requirements.

South Gate Municipal Code Section 11.25.080, *Multifamily development standards*, establishes the development standards for residential development, modifications, expansions, and redevelopment of buildings with five or more units in any residential or mixed-use zone. This Section states that all multifamily development in the NL (Neighborhood Low), NM (Neighborhood Medium) and mixed-use zones shall be consistent with the standards of Municipal Code Sections 11.23.040, *Achieving pedestrian/human-scaled development*; 11.23.050, *Open space requirements*; 11.23.060, *General building design guidelines*; 11.23.070, *Ground-floor retail and pedestrian-oriented uses*; and 11.23.080, *Guidelines for building frontage types*.

The Project would be required to comply with all applicable development and design guidelines and standards. Municipal Code Section 11.23.040, *Achieving pedestrian/human-scaled development,* aims to achieve pedestrian-scale development by providing guidelines for block size, massing, building design, and landscape design. Municipal Code Section 11.23.060, *General building design guidelines*, provides building design guidelines related to building frontage and treatment of building façades. Municipal Code Section 11.23.070, *Ground-floor retail and pedestrian-oriented uses*, provides guidelines and standards related to ground-floor retail and pedestrian-oriented uses. Municipal Code Section 11.23.080, *Guidelines for building frontage types*, provides guidelines for building frontages. As part of the plan review process, Project approval would be subject to the standards of Municipal Code Chapter 11.51, *Permits and Procedures*, which would ensure consistency with the development, design, and operational standards found in Municipal Code Sections 11.25.040, 11.25.060, 11.25.070, and 11.25.080.

The Project would also be required to adhere to Municipal Code Section 11.23.050, *Open space requirements*. The Project site comprises 0.66 acres, or approximately 28,750 square feet, and proposes to construct 14 residential multi-family units. According to Section 11.23.050, projects on lots sized between 10,000 and 30,000 square feet, and have less than 21 residential units, need to dedicate five percent of the total lot to common outdoor open space. To comply with Section 11.23.050, the Project would need to dedicate approximately 1,437 square feet to common outdoor space; the Project proposes 700 square feet. The Project is requesting a concession from the common open space requirement pursuant to State Density Bonus Law.

South Gate Municipal Code Section 11.33.080, *Urban mixed-use zone requirements*, states that single-family dwellings require two enclosed spaces and 0.2 guest spaces per dwelling unit. The Project would require two enclosed spaces for each of the units for a total of 28 enclosed spaces. An additional three guest spaces would be required based on the market rate units. The Project proposes attached two car garages for the 14 units with two of the units having tandem parking. An additional five open parking stalls for guest parking will be provided on the site. The Project is eligible for reduced parking requirements, including the use of tandem spaces, pursuant to State Density Bonus Law. Further, the Project site is located within one-half mile of a major transit stop and is not subject to minimum parking requirements pursuant to Assembly Bill (AB) 2097.

As discussed above, the Project would be consistent with the General Plan land use and zoning for the Project site and would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Thus, less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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6.12 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

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

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

No Impact. The Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land into mineral resource zones (MRZs) according to the area's known or inferred mineral potential. According to the South Gate General Plan, the State Division of Mines and Geology has not designated any lands within the City as a State classified mineral resources deposit area. In addition, no areas within the City are designated for mineral resources extraction. No impacts would occur.

Mitigation Measures: No mitigation measures are required.

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6.13 Noise

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	
b. Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

This section is based on the *Habitat for Humanity IS/EA Noise Impact Study* (Noise Study), prepared by MD Acoustics, dated December 20, 2022, and included in its entirety as Appendix F, Noise Study.

FUNDAMENTALS OF NOISE

Sound, Noise, Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic, or stationary noise, the medium of concern is air. Noise is defined as sound that is loud, unpleasant, unexpected, or unwanted.

Frequency and Hertz

A continuous sound is described by its frequency (pitch) and its amplitude (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square inch meter (N/m^2), also called micro-Pascal (µPa). One µPa is approximately one hundred billionths

(0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or Lp) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels abbreviated dB.

Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds or equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound.

Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this analysis, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

Noise Descriptors

Noise in daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 PM to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking, or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 is the sound level exceeded 10 percent of the sample time. Similarly, L50, L90 and L99, etc.

Noise: Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (e.g., school play yard areas).

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

Traffic Noise Prediction

Noise levels associated with traffic depends on a variety of factors: (1) volume of traffic, (2) speed of traffic, (3) auto, medium truck (2–3 axle) and heavy truck percentage (4 axle and greater), and sound propagation. The greater the volume of traffic, higher speeds, and truck percentages equate to a louder volume in noise. A doubling of the Average Daily Traffic (ADT) along a roadway will increase noise levels by approximately 3 dB.

Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a

point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity and turbulence can further impact have far sound can travel.

GROUND-BOURNE VIBRATION FUNDAMENTALS

Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude.

- PPV – Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.
- RMS – Known as root mean squared (RMS) can be used to denote vibration amplitude.
- VdB – A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration. To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance related to vibration impacts. According to the FTA, fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks)

at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment.

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

EXISTING NOISE ENVIRONMENT

Stationary Sources

Stationary noise sources within the Project site and vicinity are primarily those associated with surface parking, loading/unloading activities, and mechanical equipment (e.g., heating ventilation and air condition [HVAC] equipment). The noise associated with these sources and other nearby sources may represent a single-event noise occurrence or short-term noise.

Noise Measurements

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. Three short-term noise measurements were conducted near the property lines of the Project site and are illustrated in Exhibit E of the Noise Study; refer to Appendix F. The measurements measured the 15-minute Leq, Lmin, Lmax and other statistical data (e.g., L2, L8); refer to Table 6.13-1, *Short-Term Noise Measurement Data (dBA)*. As indicated in Table 6.13-1, ambient noise levels range between 63 and 69 dBA Leq near the Project site. Existing noise conditions are greater than the City's daytime noise limit for residential uses (50 dBA, Leq).

Table 6.13-1
Short-Term Noise Measurement Data (dBA)

Location	Start Time[1]	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)	L(90)
Site 1	5:21 PM	62.6	73.6	48.9	70.0	66.7	63.2	60.3	52.9
Site 2	5:47 PM	69.2	85.3	53.0	76.6	72.1	69.9	65.1	57.3
Site 3	6:03 PM	65.8	86.3	50.7	71.6	68.6	65.8	62.7	55.1

Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. Sensitive receptors nearest to the Project site consist of residential uses to the west and south.

REGULATORY FRAMEWORK

City of South Gate General Plan

Applicable policies and standards governing environmental noise in the City are set forth in the General Plan Noise Element. Table N-4 of the South Gate Noise Element is the Land Use Compatibility Guidelines, which rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. Additionally, the General Plan Noise Element includes goals and policies to reduce potential noise impacts. Policy P.1 states that construction noise activities will be prohibited between the hours of 7:00 PM to 8:00 AM Monday through Saturday and on Sundays and Federal holidays.

City of South Gate Municipal Code

South Gate Municipal Code Section 11.34.080, *Maximum sound levels by noise zone*, establishes noise level standards and temporary maximum standards applicable to land use categories by noise zone; refer to Table 6.13-2, *Noise Zone Standards* and Table 6.13-3, *Permitted Temporary Noise Level Increase*.

Table 6.13-2
Noise Zone Standards

Noise Zone	Type of Land Use	Noise Standards[1]	
		Noise Level[2]	Time Period
1	Noise Sensitive Area	45 dBA	Anytime
2	Residential Properties	50 dBA	7:00 AM – 10:00 PM
		40 dBA	10:00 PM – 7:00 AM
3	Commercial Properties	55 dBA	Anytime
4	Industrial Properties	65 dBA	Anytime

Notes:
1. For purposes of this analysis it is assumed if the exiting ambient noise exceeds the resulting standard, the ambient noise level shall be the standard.
2. dBA = A-weighted decibel Leq standard.

Table 6.13-3
Permitted Temporary Noise Level Increase

Permitted Maximum Increase[1]	Noise Duration
+5 dBA	30 minutes per hour
+10 dBA	15 minutes per hour
+12 dBA	10 minutes per hour
+15 dBA	5 minutes per hour
+20 dBA	2 minutes per hour
Notes: 1. dBA = A-weighted decibel Leq standard.	

The existing noise levels at the Project site exceed the base level conditions for residential zones. The City's noise ordinance does not specify how to apply the noise standard in this case; therefore, consistent with industry practice, this analysis assumes that if the existing ambient noise level exceeds the noise limit, the ambient noise level becomes the standard. In other words, if the project only noise does not exceed the existing ambient condition, then the Project would comply with the noise standard.

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?

Less Than Significant Impact.

Construction Noise

The degree of construction noise may vary for different areas of the Project site and also vary depending on the construction activities. Noise levels associated with the construction would vary with the different phases of construction. Typical noise levels associated with construction equipment are shown in Table 6.13-4, *Typical Construction Noise Levels*.

Construction activities would include site preparation, grading, building construction, paving, and architectural coating. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels would be loudest during grading phase. A likely worst-case construction noise scenario during grading assumes the use of a grader, a dozer, and two backhoes operating at 65 feet from the nearest residential sensitive receptor. Grading would be expected to reach up to 83 dBA Leq.

Construction noise would have a temporary or periodic increase in the ambient noise level above existing noise levels within the Project vicinity. Construction noise is considered a short-term impact and would be considered significant if construction activities occur outside the allowable times as described in the City's General Plan and Municipal Code. However, Project construction would occur during the permissible hours in accordance with the City's General Plan and Municipal Code. Thus, construction

impacts would not be considered significant. With implementation of recommended conditions of approval, construction-related noise would be further reduced. Implementation of recommended conditions of approval include ensuring construction equipment is equipped with noise attenuating devices and would also require orientation of stationary construction equipment away from nearby sensitive receptors, among other requirements.

Table 6.13-4
Typical Construction Noise Levels

Type	Noise Levels (dBA) at 50 Feet[1]
Earth Moving	
Compactors (Rollers)	73-76
Front Loaders	73-84
Backhoes	73-92
Tractors	75-95
Scrapers, Graders	78-92
Pavers	85-87
Trucks	81-94
Materials Handling	
Concrete Mixers	72-87
Concrete Pumps	81-83
Cranes (Movable)	72-86
Cranes (Derrick)	85-87
Stationary	
Pumps	68-71
Generators	71-83
Compressors	75-86
Impact Equipment	
Saws	71-82
Vibrators	68-82
Notes: 1. Referenced Noise Levels from the Environmental Protection Agency (EPA)	

Operational Noise

Stationary Noise Sources

The Project proposes to replace two currently vacant lots and an auto repair shop with a residential development comprised of 14 townhomes. Noise typical of residential uses include conversations, pet noise, and general maintenance activities. Noise from residential stationary sources would primarily occur during the "daytime" activity hours of 7:00 AM to 10:00 PM and would be required to comply with the South Gate General Plan and Municipal Code noise standards. The Project site is generally surrounded by residential uses, with the exception of Long Beach Boulevard and Willow Place, which form the site's eastern and northern boundaries, and retail uses located to the south. Mechanical equipment (e.g., heating ventilation and air conditioning [HVAC] equipment) would be the primary stationary noise source within the Project site.

The future worst-case noise level projections were modeled using SoundPLAN acoustical modeling software. The model utilizes reference sound level data for mechanical equipment; refer to Appendix F. A total of six receptor locations were modeled to evaluate the proposed Project's operational noise impact to adjacent noise sensitive land uses. Table 6.13-5, Predicted Operational Noise Levels (dBA), identifies the worst case ambient noise levels with implementation of the proposed Project.

Table 6.13-5
Predicted Operational Noise Levels (dBA)

Receptor[1]	Floor	Existing Ambient Noise Level (dBA, Leq)[2]	Project Noise Level (dBA, Leq)[3]	Total Combined Noise Level (dBA, Leq)	Exceeds Ordinance?	Change in Noise Level as Result of Project
1	1	69.2	58.0	69.5	No	0.3
2	1	65.8	54.0	66.1	No	0.3
3	1	65.8	60.0	66.8	No	1.0
4	1	65.8	47.0	65.9	No	0.3
5	1	65.8	44.0	65.8	No	0.0
6	1	62.6	40.0	62.6	No	0.0

Notes:
1. Receptors 1 and 2 represent commercial uses, Receptors 3-6 represent residential uses; refer to Exhibit F of Appendix F.
2. Ambient Noise condition from short-term noise measurements.
3. Refer to Exhibit F of Appendix F for the operational noise level projections at said receptors.

As shown in Table 6.13-5, Project only operational noise levels are anticipated to range between 40 to 60 dBA Leq at the receptors. Project plus ambient noise level projections are anticipated to range between 62.6 to 69.5 dBA Leq at the receptors. The Project noise projections are below the City's existing ambient noise levels, and the change in noise level as a result of the proposed Project is anticipated to range from 0 to 1 dB, which would not be perceptible. Therefore, the Project would comply with the City's noise regulations and impacts associated with Project stationary noise would be less than significant.

Off-Site Traffic Noise

Project construction activities would generate short-term vehicle trips from construction workers traveling to and from the Project site, construction equipment and deliveries, and truck trips associated with the import/export of soils.[38] The number of trips per day would vary depending upon the construction activity, which includes demolition, site preparation, grading, building construction and paving, architectural coating and landscaping. The site preparation phase is anticipated to have the highest number of construction-related trips (43 trips).[39]

In general, a 3-dBA increase in traffic noise is barely perceptible to people, while a 5-dBA increase is readily noticeable. Traffic volumes on Project area roadways would have to approximately double for the

[38] The analysis considers daily truck trips of 38 one-way truck trips per day for a duration of three days based on a conservative analysis of up to 357 cubic yards of fill for export, 357 cubic yards of replacement fill for import, and import of 200 cubic yards of additional fill material.
[39] CalEEMod version 2022.1; refer to Appendix A.

resulting traffic noise levels to generate a 3-dBA increase. The South Gate General Plan Mobility Element classifies Long Beach Boulevard as a Boulevard (Primary Arterial); Long Beach Boulevard consists of six lanes adjacent to the Project site. Willow Place is not classified in the General Plan, but serves the adjacent residential neighborhood. The Project's construction-related trips would result in a nominal increase in trips on Long Beach Boulevard and Willow Place and would not result in a doubling of trips. Thus, no impact would occur in this regard.

The Project would result in 94 average daily trips (ADT), of which six would occur in the AM peak hour and seven would occur in the PM peak hour. The trip generation is conservative given trip credits for the existing land auto repair use that would be removed have not been applied. Similar to construction trips, the Project's 94 ADTs associated with Project operations would result in a nominal increase in trips on Long Beach Boulevard and Willow Place and would not result in a doubling of trips. Thus, no impact would occur in this regard.

Given that the Project would comply with all noise requirements, Project construction and operation would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the General Plan, Noise Ordinance, or applicable standards of other agencies and impacts would be less than significant.

Conditions of Approval

COA N-1: Prior to approval of grading plans and/or prior to issuance of demolition, grading, and building permits, the following noise reduction techniques shall be included in the construction plans or specifications:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- The Project Applicant shall demonstrate to the satisfaction of the City's Building Official that construction noise reduction methods shall be used where feasible, including shutting off idling equipment.
- Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.
- During construction, equipment staging areas shall be located such that the greatest distance is between the staging area noise sources and noise-sensitive receptors.
- Per the South Gate General Plan Noise Element, construction activities shall not occur during the hours of 7:00 PM to 8:00 AM Monday through Saturday and on Sundays and Federal holidays.

Mitigation Measures: No mitigation measures are required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Construction activities can produce vibration that may be felt by adjacent land uses. The Caltrans Transportation and Construction Induced Vibration Guidance Manual provides general thresholds and guidelines as to the vibration damage potential from vibration impacts. Table 6.13-6, *Guideline Vibration Damage Potential Threshold Criteria*, identifies the thresholds and Table 6.13-7, *Vibration Source Levels for Construction Equipment*, identifies the approximate vibration levels for particular construction activities at a distance of 25 feet.

Table 6.13-6
Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some older buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5
Source: Caltrans, *Transportation and Construction Vibration Guidance Manual*, Table 19, September 2013.		
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.		

Table 6.13-7
Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 (upper range)	105
	0.170 (typical)	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 (in soil)	66
Slurry wall	0.017 (in rock)	75
Vibratory roller	0.21	94
Hoe ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.		

Residential structures are located immediately adjacent to the west and south of the Project site. The construction of the proposed Project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary vibration source during construction may be from a bull dozer. A large bull dozer has a vibration impact of 0.03 inches per second peak particle velocity (PPV) at 65 feet which is below any risk to architectural damage and on the threshold of perception. It is also acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest residential structures. Potential vibration impacts would be less than significant, and no mitigation is required.

Mitigation Measures: No mitigation measures are required.

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?

No Impact. The Project site in not located within an airport land use plan, nor is the Project site located within two miles of a private airstrip, public airport, or public use airport. Thus, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area.

Mitigation Measures: No mitigation measures are required.

6.14 Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

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

Less Than Significant Impact. The Project would not induce substantial unplanned population growth directly through new homes or indirectly through the extension of roads or other infrastructure. The Project site is currently developed and surrounded by existing development. The Project proposes construction of a residential development and does not propose any employment-generating uses or new roadways.

As of January 2025, the City of South Gate had an estimated population of 92,955 persons.[40] The Project involves the development of 14 townhome units, which would induce direct population growth in the City. Based on 3.64 persons per household, which is the average household size for the City of South Gate, the Project's forecast population growth is approximately 51 persons.[41] The Project's forecast population growth would increase the City's existing population by less than one percent (approximately 0.05 percent) to 93,006 persons. According to the South Gate General Plan, the Project site is within the Long Beach Corridor Sub-Area 3. Corridors are the major transportation thoroughfares and access routes in the City. In the Long Beach Corridor Sub-Area 3, Neighborhood Medium-High, Boulevard Medium-High, and Open Space uses are strongly encouraged within this Sub-Area. The Neighborhood Medium-High designation provides for attached single-family and multi-family housing. The designation is generally located along relatively high frequency roadways such as parts of Long Beach Boulevard. The designation encourages new development to create an attractive street front where residents can meet and interact. Allowed land uses include duplexes, triplexes, fourplexes; townhomes and rowhouses; multi-family; parks, plazas, and open space; education; cultural; public assembly, and civic and institutional. Permitted

[40] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2025*, Sacramento, California, May 2025.
[41] Ibid.

density (excluding any density bonuses) for the land use is 21 to 40 dwelling units per acre with a maximum of four stories.

As the proposed Project is within the regulations of the UN and Neighborhood Medium-High designations, the Project would be within the population projections anticipated and planned for by the City's General Plan and would not induce substantial unplanned population growth in the area.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The two northern parcels of the Project site contain asphalt in disrepair from a former parking lot and dirt, while the southern parcel (also developed with asphalt) is currently occupied by an auto repair shop. The Project site is surrounded by a mix of residential and commercial land uses: hotel and residential uses to the north, hotel and commercial uses to the east, commercial and residential uses to the south, and residential uses to the west. There is no housing within the Project site. Thus, the proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Mitigation Measures: No mitigation measures are required.

6.15 Public Services

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?			X	
2) Police protection?			X	
3) Schools?			X	
4) Parks?			X	
5) Other public facilities?			X	

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

1) Fire protection?

Less Than Significant Impact. The City contracts with the Los Angeles County Fire Department (LACoFD) to provide fire protection and emergency medical services to the City. According to the General Plan, there are two fire stations located within the City: Fire Station 54, located at 4867 Southern Avenue, is staffed at all times by one captain, one engineer, one firefighter, and three paramedics; and Fire Station 57, located at 5720 Gardendale Street, is staffed by one captain, one engineer and two firefighters. The closest fire station to the Project site is Fire Station 54, located approximately 2.2 miles east of the site.

LACoFD uses data collected by its member agencies to better plan for the future. As the Project is within the designated use of the General Plan, LACoFD has accounted for and anticipated potential Project impacts. The introduction of residential uses to the Project site would incrementally increase the demand for fire protection and emergency medical services to the site. However, as discussed in Response 6.14(a), the forecast population growth associated with the Project represents a less than one percent increase in population over existing conditions and is within the growth projections anticipated by the City's General

Plan. Additionally, the southern parcel of the Project site is developed with an auto repair shop that the LACoFD currently provides service to as needed. Therefore, the population increase associated with the Project would not significantly impact the need for fire protection services.

As part of the development review process, the City's Building and Safety Division will review the proposed Project site plan to ensure that access and water system requirements, which would enhance the proposed development's fire protection, are adequate. Further, the Project would be required to comply with standard conditions of approval as well as the California Fire Code. This includes plan review of the design details of the architectural, structural, mechanical, plumbing, and electrical systems. The Project would be required to comply with applicable City, County, and State code and ordinance requirements for fire protection. The City of South Gate Municipal Code Chapter 10.12, *Fire Code*, adopts the California Fire Code by reference. Implementation of all Fire Code requirements would further reduce potential impacts concerning fire protection services. The Project would not require the need for new or physically altered fire station facilities in order to maintain acceptable service ratios, response times or other performance objectives and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

2) Police protection?

Less Than Significant Impact. The South Gate Police Department provides police protection services in the City of South Gate, including the Project site. As stated in the General Plan, the Department operates out of its headquarters at 8620 California Avenue, as well as a substation at the El Paseo Shopping Center. The nearest facility is the Police Department headquarters, located approximately 1.0 mile east of the Project site.

The introduction of residential uses to the Project site would incrementally increase the demand for police protection services to the site. However, as discussed in Response 6.14(a), the forecast population growth associated with the Project represents a less than one percent increase in population over existing conditions and is within the growth projections anticipated by the City's General Plan. Additionally, the southern parcel of the Project site is developed with an auto repair shop that the Police Department currently provides service to as needed. Therefore, the population increase associated with the Project would not significantly impact the need for police protection services.

According to the General Plan, the City does not currently have a development or public safety impact fee to fund additional police services necessitated by growth. However, as the Project is within the growth projections anticipated by the City's General Plan, the Project would not require the need for new or physically altered police facilities in order to maintain acceptable service ratios, response times or other performance objectives and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

3) Schools?

Less Than Significant Impact. The City is located within the Los Angeles Unified School District (LAUSD) boundaries. The Project site is located within the service area of the following schools[42]:

- Willow Elementary School (TK-5)
- South Gate Senior High (9-12)
- South East Senior High (9-12)
- Southeast Middle School (6-8)
- South Gate Middle School (6-8)

In addition to the above, LAUSD identifies additional options including International Studies Learning Center (6-12), Legacy Senior High Visual and Performing Arts (9-12), and Legacy Senior High Sci Tech Engineering Arts Math (9-12) Schools. In addition to LAUSD facilities, the Project site is served by Westbrook Academy, a K-12 charter school located approximately 0.6 miles northwest of the Project site; and the Southeast Campus of the East Los Angeles College (ELAC), located approximately 0.4 miles northwest of the Project site.

The student population growth associated with the Project could incrementally increase the demand on schools serving the Project site. Based on LAUSD student generation factors, the Project's proposed 14 townhome units are forecast to generate less than six new students (two to three elementary, less than one middle, one to two high school, and less than one special day class students).[43] The 2024 Developer Fee Justification Study for Los Angeles Unified School District anticipates continued residential development within the school district service area and identifies available district capacity at all grade levels.[44] Further, the Project is within the growth projections anticipated by the City's General Plan, and therefore, subsequently, has been anticipated by the LAUSD Developer Fee Justification Study. The Project would not create a direct need for new or physically altered school facilities.

In addition, the Project would be subject to payment of school impact fees in accordance with Senate Bill 50 (SB 50). Pursuant to Government Code Section 65995(3)(h), payment of statutory fees is deemed to be full and complete mitigation of impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use or development of real property…" Developer fees collected by LAUSD pursuant to SB 50 are used for the provision of additional and reconstructed or modernized school facilities. When deemed necessary, Project Applicants would be required to pay all statutory fees in place at the time and demonstrate proof of payment to the City as a Condition of Approval. The Project would not require the need for new or physically altered school facilities and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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[42] Los Angeles Unified School District, *Resident School Identifier*, https://rsi.lausd.net/ResidentSchoolIdentifier/ , accessed December 1, 2025.
[43] Schoolworks, Inc., *2024 Developer Fee Justification Study Los Angeles School District*, February 2024.
[44] Ibid.

4) Parks?

Less Than Significant Impact. The proposed Project is forecast to generate approximately 51 residents, which could increase the use of parks within the Project area. However, as discussed in Response 6.14(a), the forecast population growth associated with the Project represents a less than one percent increase in population over existing conditions and is within the growth projections anticipated by the City's General Plan.

South Gate Municipal Code Section 11.23.050, *Open Space Requirements*, dictates that all new development in urban mixed-use zones is required to provide open space; both common outdoor open space and private open space are allowed. Further, Municipal Code Section 11.25.080, *Multifamily development standards*, regulates residential development, modifications, expansions, and redevelopment of buildings with five or more units in any residential or mixed-use zone. This Section establishes that all spaces and amenities required on a per-unit basis by this chapter (Chapter 11.25, *Residential Neighborhood Zones*), including private open space, private storage, and required parking, shall be assigned to each unit and not transferable between units.

According to the General Plan Green City Element, the Parks and Recreation Department operates nine parks in the City that total 165.74 acres. The General Plan Green Element identifies the City's desired park ratio goal to be 3.0 acres of park area per 1,000 residents. As of January 2025, the estimated population for the City is 92,955 persons, indicating that the City has a park ratio of 1.78, and does not meet its current goal. The South Gate General Plan Green Element Policy 1.2.5 allows the City to collect land dedications or in lieu fees from new development for the provision of parks and recreation facilities, in pursuit of a desired parkland standard of 3 acres per 1,000 residents, as allowed by the California Quimby Act.

The Project proposes 14 units that each provide private space areas. The common areas would include guest surface parking areas, outdoor benches, and community green space, totaling 1,200 square feet. As the proposed Project does not provide any public parkland, the Project would be required to pay an in-lieu fee to the City, to ensure impacts remain at less-than-significant levels. With the provision of on-site amenities, compliance with South Gate Municipal Code Title 11, and payment of dedication fees, the Project would not result in the need for new or physically altered public park or recreation facilities and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

5) Other public facilities?

Less Than Significant Impact. Los Angeles County provides library, cultural resource centers, and bookmobile services to over 3.4 million residents across 3,000 square miles of unincorporated areas and incorporated cities in Los Angeles County.[45] There are two libraries located within the City of South Gate: Leland R. Weaver Library, located at 4035 Tweedy Boulevard, and Hollydale Library, located at 12000 Garfield Avenue[46]. The closest library to the Project site is the Leland R. Weaver Library, located

[45] LA County Library, *About the Library*, https://lacountylibrary.org/aboutus/, accessed December 1, 2025.
[46] LA County Library, *Library Locator*, available at https://lacountylibrary.org/library-locator/, accessed December 1, 2025.

approximately 1.5 miles east of the Project site. As part of its Strategic Plan, the County of Los Angeles will support the library system by identifying funding opportunities to extend programs and services at all County libraries.

As the Project introduces new residents to the County population, the forecast population growth associated with the Project could incrementally increase demand for library services. However, as discussed in Response 6.14(a), the forecast population growth associated with the Project represents a less than one percent increase in City population over existing conditions and is within the growth projections anticipated by the City's General Plan. Therefore, implementation of the Project would not result in the need for new or physically altered library facilities to adequately serve the community. Impacts to library services would be less than significant.

Mitigation Measures: No mitigation measures are required.

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6.16 Recreation

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

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

Less Than Significant Impact. Refer to Response to 4.15(a)(4).

Mitigation Measures: Less Than Significant Impact.

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

Less Than Significant Impact. South Gate Municipal Code Section 11.23.050, *Open Space Requirements*, dictates that all new development in urban mixed-use zones is required to provide open space. Further, Municipal Code Section 11.25.080, *Multifamily development standards*, regulates residential development, modifications, expansions, and redevelopment of buildings with five or more units in any residential or mixed-use zone. This Section establishes that all spaces and amenities required on a per-unit basis by this chapter (Chapter 11.25, *Residential Neighborhood Zones*), including private open space, private storage, and required parking, shall be assigned to each unit and not transferable between units.

According to the General Plan Green City Element, the Parks and Recreation Department operates nine parks in the City that total 165.74 acres. The General Plan Green Element identifies the City's desired park ratio goal to be 3.0 acres of park area per 1,000 residents. As of January 2025, the estimated population for the City is 92,955 persons, indicating that the City has a park ratio of 1.78, and does not meet its current goal. The South Gate General Plan Green Element Policy 1.2.5 allows the City to collect land dedications or in lieu fees from new development for the provision of parks and recreation facilities, in pursuit of a desired parkland standard of 3 acres per 1,000 residents, as allowed by the California Quimby Act.

The Project proposes 14 units that each provide private space areas. The common areas would include guest surface parking areas, outdoor benches, and community green space, totaling to 1,200 square feet. The Project would pay in lieu fees pursuant to South Gate General Plan Green Element Policy 1.2.5 as this

Policy allows the City to collect land dedications or in lieu fees from new development for the provision of parks and recreation facilities. With compliance to South Gate Municipal Code Chapters 11.23 and 11.25, and payment of dedication fees, the Project would not require the construction of new or expansion of existing recreational facilities that would have a significant adverse physical effect on the environment. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

6.17 Transportation

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d. Result in inadequate emergency access?			X	

This section is in-part based on the *Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening, City of South Gate, California* (Local Transportation Assessment), prepared by MAT Engineering Inc., dated February 10, 2026, and included in its entirety as Appendix G, Local Transportation Assessment.

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact.

Transit Facilities

The City operates a local transit bus system called the "Get Around Town Express" (GATE). The service runs on a continuous loop. Approximate wait time is between 18 and 24 minutes. Wait time is subject to change during peak hours. Regular fare is $0.50. Members of the City's Phone a Ride program, and High School & College/Vocational, ride free of charge (Student fee waiver is only valid during school hours). The service operates for most of the year with a few exceptions. It runs Monday - Friday 6:00 AM – 7:00 PM, and Saturday 8:00 AM – 5:00 PM. The two stops closest to the site are Stops R and S. Stop R is located at Southern Avenue and Madison Avenue, approximately 0.5 miles southeast of the Project site; and Stop S is located at Southern Avenue and Stanford Avenue, approximately 0.2 miles south of the Project site.[47]

[47] City of South Gate, *GATE Buses*, available at https://www.cityofsouthgate.org/City-Services/Transportation/GATE-Buses, accessed December 1, 2025.

LA Metro Route 60 operates between the Cities of Compton and Downtown Los Angeles (near Chinatown), traveling through the Cities of Lynwood, South Gate, Vernon along Long Beach Boulevard.[48] Typically, Route 60 operates on weekdays from approximately 4:30 AM to 10:30 PM, with 15- to 25-minute headways; on Saturdays from 4:30 AM to 11:45 PM with approximately 10- to 15- minute headways; on Sundays and Holidays from 4:00 AM to 11:45 PM with 15- to 20- minute headways; and on Saturdays and Sundays Late Night/Owl Service from approximately 11:00 PM to 5:00 AM with approximately hour-long headways. There are two LA Metro Route 60 bus stops approximately 0.1 miles from the Project site in both the north and south direction along Long Beach Boulevard.[49]

The Project site and surrounding area is served by GATE and LA Metro. The Project site would continue to be served by the existing transit system after Project implementation. The population growth associated with the Project could incrementally increase the demand for public transit services. However, the Project would not conflict with a program plan, ordinance, or policy addressing transit and impacts would be less than significant.

Roadway Facilities

Willow Place and Long Beach Boulevard provide access to the Project site. According to the South Gate General Plan, Long Beach Boulevard is a Boulevard (Primary arterial). Boulevards are major streets that carry both local and through traffic and are expected to carry the highest volumes of traffic in the City. They provide limited access to adjacent land uses. Boulevards are multi-modal streets that serve as key transit corridors, emergency response routes, and may also serve as truck routes. They are functionally equivalent to a Primary Arterial. The Project does not propose any changes to Long Beach Boulevard. Long Beach Boulevard provides two lanes of travel in each direction with curbside parking.

The Project does not propose any modifications to Willow Place or Long Beach Boulevard. The Project site is currently accessed from two driveways on Long Beach Boulevard to the southern parcel, a driveway on Long Beach Boulevard to one of the northern parcels (APN 6204-025-901) and a driveway on Willow Road for access to the other northern parcel (APN 6204-025-900). The Project proposes the removal of all existing on-site improvements and structures within the 0.66-acre site and construction of a common interest subdivision and affordable housing development. Access to the Project site is proposed from two driveways, one located on Willow Place and one located on Long Beach Boulevard. Roadway facilities would continue to serve the Project site and surrounding development. The Project would not conflict with a program plan, ordinance, or policy addressing roadway facilities.

Bicycle Facilities

There are no existing bicycle facilities adjacent to the Project site.

The City of South Gate Bicycle Transportation Plan (Bicycle Plan) was adopted in October 2012. This plan is intended to guide the development and maintenance of a comprehensive bicycle network and includes programs to achieve these goals of higher levels of connectivity. The Bicycle Plan (Chapter 6) identifies proposed bicycle facilities within the City. Type B sharrows are proposed along Long Beach Boulevard from

[48] LA Metro, *Route 60 Local Line*, available at https://www.metro.net/riding/schedules-2/, accessed December 1, 2025.
[49] Ibid.

the northern City limit to Tweedy Boulevard; the Project site is within this proposed improvement. Several improvements, including colored bike lanes, are also proposed along Firestone Boulevard, which is less than a quarter mile north of the Project site. A sharrow, or shared-lane arrow, is a marking used to indicate the preferred path of travel for bicyclists in a lane that bicyclists and motorists share. The sharrow reminds motorists that they may encounter people on bikes, and that people on bikes may occupy the full travel lane. The Type B Sharrow is a more prominent way to implement the sharrow marking. Type B Sharrows could include using a bright colored paint to mark the bike lane, or large sharrows spaced close together with longitudinal lines flanking could be used.

The Project does not propose any modifications to Willow Place or Long Beach Boulevard. The Project site is currently accessed from two driveways on Long Beach Boulevard to the southern parcel, a driveway on Long Beach Boulevard to one of the northern parcels (APN 6204-025-901) and a driveway on Willow Road for access to the other northern parcel (APN 6204-025-900). The Project proposes the removal of all existing on-site improvements and structures within the 0.66-acre site and construction of a common interest subdivision and affordable housing development. Access to the Project site is proposed from two driveways, one located on Willow Place and one located on Long Beach Boulevard. These improvements would not interfere or conflict with the proposed Type B sharrows along the Project frontage. Consolidation of driveways from four to two would reduce the interruptions and improve the bicyclist experience along the Project frontage. Further, the Project would include onsite bike parking. Residents of the proposed Project could incrementally increase the use of bicycle facilities within the Project area and throughout the City. The Project would not conflict with a program plan, ordinance, or policy addressing bicycle facilities and impacts would be less than significant.

Pedestrian Facilities

A sidewalk is currently provided along Long Beach Boulevard and Willow Place, bordering the Project site. The Project proposes the removal of all existing on-site improvements and structures within the 0.66-acre site and construction of a common interest subdivision and affordable housing development. Pedestrian access would be provided to the individual units from Willow Place and Long Beach Boulevard. The existing width of the sidewalks along Long Beach Boulevard and Willow Place would not be changed. Consolidation of driveways from four to two would reduce the interruptions and improve the pedestrian experience along the Project frontage. The Project would also provide landscaping along the Project frontage. The Project would not conflict with a program, plan, ordinance or policy addressing pedestrian facilities and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3). Based on Section 3.1.2.1 of the County of Los Angeles traffic study requirements (July 23, 2020), non-retail projects generating less than 110 daily trips (or less than 50 peak hour trips) could be screened out from requiring a full VMT analysis.

Trip generation represents the number of trips attracted and produced by a land use. The Local Transportation Assessment explains that trip generation for the existing use and the proposed Project is based upon the specific land uses that have been proposed by the Project and has been determined utilizing the Institute of Transportation Engineers (ITE) trip generation rates which is an industry standard for calculating trips associated with land uses. According to the Local Transportation Assessment, the existing use generates approximately 22 daily trips which includes approximately 3 AM peak hour trip and approximately 3 PM peak hour trips. It was concluded that, without factoring in current trips generated by the existing use, the proposed Project is forecast to generate approximately 87 daily trips which includes approximately 6 AM peak hour trips and approximately 7 PM peak hour trips. However, after factoring in current trips generated by the existing use, the proposed Project is forecast to generate approximately 65 net additional daily trips which include approximately 3 net additional AM peak hour trips and approximately 4 net additional PM peak hour trips. Therefore, the Project is anticipated to generate fewer than 110 daily trips. In accordance with the County of Los Angeles traffic study requirements, a detailed VMT analysis is not required and the Project can be presumed to have a less than significant impact on VMT.

It is acknowledged that Project construction activities would generate short-term vehicle trips from construction workers traveling to and from the Project site, construction equipment and deliveries, and truck trips associated with the import/export of soils.[50] The number of trips per day would vary depending upon the construction activity, which includes demolition, site preparation, grading, building construction and paving, architectural coating and landscaping. The site preparation phase is anticipated to have the highest number of construction-related trips (43 daily trips), which would be less than the 65 net additional daily trips that would be generated by the Project once operational.[51] The County of Los Angeles traffic study requirements does not require an assessment of VMT for the construction phase of a development Project, such as the proposed Project. Therefore, construction vehicle trips have been provided here for informational purposes only.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The Project would not provide any off-site roadway improvements that could substantially increase hazards due to a design feature. The Project site is currently accessed from two driveways on Long Beach Boulevard to the southern parcel, a driveway on Long Beach Boulevard to one of the northern parcels (APN 6204-025-901) and a driveway on Willow Road for access to the other northern parcel (APN 6204-025-900). The Project proposes the removal of all existing on-site improvements and structures within the 0.66-acre site and construction of a common interest subdivision and affordable housing development. Access to the Project site is proposed from two driveways, one located on Willow Place and one located on Long Beach Boulevard. Consolidation of driveways from four to two would reduce the interruptions and improve pedestrian and bicyclist safety. The proposed driveway on Willow Place would

[50] The analysis considers daily truck trips of 38 one-way truck trips per day for a duration of three days based on a conservative analysis of up to 357 cubic yards of fill for export, 357 cubic yards of replacement fill for import, and import of 200 cubic yards of additional fill material.
[51] CalEEMod version 2022.1; refer to Appendix A.

allow for egress only via right-turn out. The proposed driveway on Long Beach Boulevard would allow for ingress/egress via right-turn in and out. As the Project would not alter geometric design of the site (e.g., introduce sharp curves, dangerous intersections, blind spots, etc.), the Project would have less than significant impacts in this regard.

Mitigation Measures: No mitigation measures are required.

d) Result in inadequate emergency access?

Less Than Significant Impact. Long Beach Boulevard provides direct access to the Project site and according to the South Gate General Plan Safety Element is an Evacuation Route, providing primary evacuation and emergency access within the area. The South Gate General Plan Mobility Element identifies Long Beach Boulevard as a Boulevard (Primary Arterial). According to the Mobility Element, Boulevards are multi-modal streets that serve as key transit corridors, emergency response routes, and may also serve as truck routes. The construction and operation of the proposed Project would not place any permanent physical barriers on Long Beach Boulevard. There is the potential that traffic lanes located immediately adjacent to the Project site may be temporarily closed or controlled by construction personnel during construction activities. Any temporary closure would be required to receive permission from the City. However, this would be temporary and emergency access to the Project site and surrounding area would be required to be maintained along Long Beach Boulevard at all times. Additionally, all construction staging would occur within the boundaries of the Project site and would not interfere with circulation along Long Beach Boulevard, Willow Place, or any other nearby roadways.

The Project site is currently accessed from three driveways on Long Beach Boulevard and one driveway on Willow Place. Access to the Project site is proposed from two driveways, one located on Willow Place and one located on Long Beach Boulevard. The proposed driveway on Willow Place would allow for egress only via right-turn out. The proposed driveway on Long Beach Boulevard would allow for ingress/egress via right-turn in and out. A private interior driveway system, consistent with LACoFD access requirements, would provide access to the individual townhome units. Prior to the issuance of a building permit, the applicant is required to submit appropriate plans for plan review to ensure compliance with zoning, building, and fire codes. LACoFD would review the Project for access requirements, minimum roadway widths, fire apparatus access roads, fire lanes, signage, and access walkways, among other requirements to ensure adequate emergency access would be provided to and within the Project site. The Project would be required to comply with all applicable Building and Fire Code requirements and would submit construction plans to the Fire Department's Engineering Building Plan Check Unit for review and approval prior to issuance of any building permit. Approval by the Fire Department would ensure that Project construction and operation would not result in inadequate emergency access and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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6.18 Tribal Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X		
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. Assembly Bill (AB) 52 requires that lead agencies evaluate a project's potential impact on "tribal cultural resources", which include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources". AB 52 also gives lead agencies the discretion to determine, based on substantial evidence, whether a resource qualifies as a "tribal cultural resource." AB 52 applies whenever a lead agency adopts an environmental impact report, mitigated negative declaration, or negative declaration.

In compliance with AB 52, the City provided formal notification to those California Native American Tribal representatives requesting notification in accordance with AB 52; refer to Appendix C. The Gabrieleno Band of Mission Indians – Kizh Nation requested formal consultation with the City. In response to the request for consultation, the City engaged with the Gabrieleno Band of Mission Indians – Kizh Nation. Although no Native American tribal cultural resources are known to occur within the Project site, based on the Gabrieleno Band of Mission Indians – Kizh Nation's cultural affiliation with the area, the parties agreed to impose mitigation measures to mitigate potential impacts to previously unidentified Native American tribal cultural resources.

Mitigation measures would require the retention of a qualified Native American Monitor who would be present during all construction related ground disturbances. In the event tribal cultural resources are unearthed, they would be evaluated by the Native American Monitor and if determined to be Native American in origin, appropriate treatment and curation of the resources would occur. Additionally, mitigation would address the potential discovery of human remains, providing for coordination with the Tribe and qualified archaeologist. With implementation of Mitigation Measures TCR-1, TCR-2, and TCR-3, the proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource and impacts would be reduced to a less than significant level.

Mitigation Measures:

TCR-1 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as

any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.

On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural, and/or historic purposes.

TCR-2 Unanticipated Discovery of Human Remains and Associated Funerary Objects. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.

Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).

Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).)

Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological

material, it shall be offered to a local school or historical society in the area for educational purposes.

Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

TCR-3 Procedures for Burials and Funerary Remains. As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.

If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.

The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.

In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.

In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.

Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically, and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be

submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.

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6.19 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact.

Water

The South Gate Water System serves the entirety of the City, including the Project site, with the exception of the Hollydale area, which is served by Golden State Water Company. The City receives its water from two main sources, groundwater from the Central Groundwater Basin (Basin) and recycled water from Central Basin Municipal Water District (CBMWD). The City's allocated Allowed Pumping Allocations (APA) from the Central Basin is 11,183 AF. The water system in South Gate is regulated through federal law, State law, the South Gate Municipal Code, and court decisions.

The Project proposes to connect all individual units' water and sewer to existing laterals in Willow Place and Long Beach Boulevard. The potential environmental effects associated with construction and operation of the Project, including the proposed water lines to serve the residential development are analyzed within this Initial Study and impacts have been determined to be less than significant with compliance with regulatory requirements and implementation of mitigation. Thus, the proposed Project would not require or result in relocation or construction of water facilities, the construction or relocation of which could cause significant environmental effects.

Refer to Response 4.19(b) regarding water supply.

Wastewater and Wastewater Treatment

According to the General Plan, the City's sanitary sewer collection system is managed by the City's Public Works Department. The Project proposes to connect all individual units' water and sewer to existing laterals in Willow Place and Long Beach Boulevard. Therefore, Project implementation would not result in the need for new or expanded wastewater facilities. The potential environmental effects associated with construction and operation of the Project, including the proposed sewer lines to serve the residential development are analyzed within this Initial Study and impacts have been determined to be less than significant with compliance with regulatory requirements and implementation of mitigation. Thus, the proposed Project would not require or result in relocation or construction of wastewater facilities, the construction or relocation of which could cause significant environmental effects.

Refer to Response 4.19(c) below, regarding wastewater treatment.

Stormwater Drainage

South Gate's stormwater system is managed by the City's Department of Public Works and the Los Angeles County Department of Public Works (LACDPW). Most stormwater drains through street curb and gutters to LACDPW storm drains, but there are a limited number of circular storm drains maintained by the City.

An on-site stormwater capture system (dry well system) would be placed under the driveway behind the units. The system would meet low impact development (LID) requirements and discharge to Long Beach Boulevard. The potential environmental effects associated with construction and operation of the Project, including the proposed storm drain improvements to serve the residential development are analyzed within this Initial Study and impacts have been determined to be less than significant with compliance with regulatory requirements and implementation of mitigation. Thus, the proposed Project would not require or result in relocation or construction of stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.

Refer to Section 6.10, *Hydrology and Water Quality*, regarding drainage patterns and the Project's proposed hydrology and drainage.

Electricity, Natural Gas, and Telecommunications

The Project site receives electrical power from Southern California Edison (SCE) and natural gas service from Southern California Gas (SoCalGas). Telecommunication services are provided by a variety of companies and are typically selected by the individual customer. Transmission lines/infrastructure for these services are provided within the Project area and currently serve on-site uses.

All appliances, water heaters, and HVAC systems associated with the implementation of the Project would be electric; gas service would not be provided for the development.

The Project's anticipated electricity demand would be approximately 51 MWh per year; refer to Section 6.6, *Energy*, regarding an analysis of the Project's energy use. The Project would connect to existing electrical and telecommunications infrastructure, and no off-site improvements are proposed. The potential environmental effects associated with the Project's energy demand are analyzed within this Initial Study and impacts have been determined to be less than significant. The proposed Project would not require or result in relocation or construction of electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Mitigation Measures: No mitigation measures are required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The City of South Gate uses groundwater from the City wells as its primary source. As discussed in the 2020 UWMP, water generated from wells is chlorinated and distributed to City customers or stored in reservoirs. The City can also acquire imported water from Metropolitan Water District of Southern California (MWD) through CBMWD, but has not done so in several years.

South Gate Water supplies water to the City, including the Project site. The South Gate 2020 UWMP confirms that water supplies would meet the service area's water demands for normal, single-dry, and multiple dry-year conditions through 2045 (refer to Tables 3.13 through 3.19 of the 2020 UWMP). The 2020 UWMP water demand forecasts are based on adopted General Plan land use designations.

The Project proposes the removal of all existing on-site improvements and structures within the site and construction of 14 two- and three-story attached townhomes in four buildings, which is consistent with the General Plan land use designation Neighborhood Medium-High. Based on 3.64 persons per household, the Project's forecast population growth is approximately 51 persons. The Project's forecast population growth would increase the City's existing population by less than one percent (approximately 0.05 percent) to 93,006 persons (refer to Section 6.14, *Population and Housing*). The South Gate General Plan, and 2020 UWMP, anticipate the population to slightly increase through 2040, as the City and surrounding area are built-out; the Project would be within the population projections anticipated and planned for by the City's General Plan and would not increase growth beyond what was anticipated in the 2020 UWMP.

In 2020, South Gate Water Area had a daily per capita water use of 88.8 gallons per capita per day (GPCD), which was below the 2020 water use target of 100 GPCD (see Response 6.10(e)). As the Project is consistent with the General Plan land use designation and zoning district, it is considered to be within the population projections anticipated by the City and the 2020 UWMP, implying that the City would continue to comply with SBX7-7 requirements, which aim to reduce urban water usage. Project impacts concerning water demand would be less than significant. Further, the 2020 UWMP provides conservation programs along with incentives to conserve water in the City. As the UWMP has indicated that South Gate Water will have sufficient supplies through 2045, and that the proposed Project is consistent with the General Plan growth assumptions, the Project would not create insufficient water supply, impacts would be less than significant.

Mitigation Measures: Less Than Significant Impact.

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

Less Than Significant Impact.

Wastewater Generation

The City's sanitary sewer collection system is managed by the City's Public Works Department. Generally, sewer flows within the City flow by gravity from north to south. Approximately 99 percent of local wastewater flows discharge into Los Angeles County Sanitation District (LACSD) facilities for transportation, treatment, and disposal. The remaining one percent of total sewage passes into the City of Paramount system and is then discharged into LACSD facilities.[52] The Project proposes to remove existing site improvements and develop the site with 14 townhomes. The Project would connect all individual units' water and sewer to existing laterals in Willow Place and Long Beach Boulevard.

As the Project is consistent with the General Plan, and would connect to existing infrastructure, impacts would be considered negligible and upgrades to the sewer main would not be necessary to support the proposed Project. Thus, the future peak flow rates produced by the proposed Project would not significantly impact or exceed the capacity of the existing sewer infrastructure. Impacts would be less than significant.

Wastewater Treatment

As discussed in the City Sewer System Management Plan prepared by David Evans and Associates, Inc. in 2017, the City's sanitary sewer collection system is managed by the Public Works Department. The collection system consists of about 119.4 miles of gravity sewer lines, no pump/lift stations, and about 100 sewer siphons within the system. Approximately 99-percent of local wastewater flows, discharge into LACSD facilities for transportation, treatment, and disposal. The remaining one percent of total sewage generated within the City passes into the City of Paramount system and is then discharged into LACSD facilities.[53]

Further, the General Plan indicates that there are 21 LACSD trunk lines that run through various portions of the City. These trunks convey sewage from South Gate and other communities to the A.K. Warren Water Resource Facility (Warren Facility, formerly known as the Joint Water Pollution Control Plant) in Carson. The Warren Facility is the Sanitation Districts' oldest and largest wastewater treatment plant. Serving a population of approximately 3.5 million people, Warren Facility treats an average of 260 million gallons of wastewater per day.[54] All solids from the Joint Outfall System are processed here and anaerobically digested to produce methane gas; the methane gas is then burned in the Total Energy Facility to produce enough electrical power to run the entire plant.[55] After treatment, the effluent is

[52] Kennedy/Jenkins Consultants Inc., *City of South Gate Sewer Master Plan*, June 2019.
[53] David Evans and Associates, Inc, *Sewer System Management Plan Final Report, City of South Gate*, January 2017.
[54] Los Angeles County Sanitation Districts, *Facilities: A.K. Warren Water Resource Facility* , https://www.app.lacsd.org/facilities/?tab=0&number=1 , accessed December 1, 2025.
[55] Ibid.

chlorinated and discharged through two ocean outfalls a mile and a half offshore. The Warren Facility currently provides primary and secondary treatment for a design capacity of 400 million gallons of wastewater per day.[56]

The design capacities of LACSD's facilities are based on the regional growth forecast adopted by SCAG. Expansion of LACSD's facilities must be sized and their service phased in a manner that is consistent with the SCAG regional growth forecast. Because SCAG growth projections are based in part on growth identified in local General Plans, growth associated with development of the Project site based on its General Plan land use designation has been anticipated by the growth forecasts. As discussed in Section 6.14, *Population and Housing*, the Project's forecast population growth would increase the City's existing population by less than one percent (approximately 0.05 percent) to 93,006 persons. Further, the Project is consistent with the General Plan and the Zoning Map. Thus, the Project would be within the population projections anticipated and planned for by the City's General Plan. Further, LACSD has the authority to charge a fee for the privilege of connecting to the LACSD's Sewage System for increasing the strength or quantity of wastewater discharged from connected facilities. The fee payment would be required before a permit to connect to the sewer is issued. Thus, adequate wastewater treatment would be available to serve the proposed Project and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. The City has several programs to divert solid waste from landfills including composting, facility recovery, policy incentives, household hazardous waste management, and public education about recycling and waste reduction. The City contracts with Universal Waste Systems to provide refuse and recycling services to South Gate residences.[57] The General Plan further explains that the City's waste hauler makes use of a transfer station in South Gate and uses specific landfills for residential and commercial/industrial wastes: Commerce Refuse-To-Energy Facility, Bradley Landfill, Downtown Diversions, Inc., El Sobrante Landfill, Nu-Way Live Oak Reclamation, Inc., Southeast Recovery Resource Facility City of Long Beach-Energy Recovery Bureau, and Synagro Regional Composting Facility. Further research through CalRecycle indicates that the Commerce Refuse-To-Energy Facility and the Bradley Landfill are closed, and the Nu-Way Live Oak Reclamation Inc. site are inactive.[58,59,60,]

[56] Los Angeles County Sanitation Districts, *A.K. Warren Water Resource Facility*, available at https://www.lacsd.org/services/wastewater-sewage/facilities/ak-warren-water-resource-facility, accessed December 1, 2025.

[57] City of South Gate, *Utilities and Water*, available at https://www.cityofsouthgate.org/Government/Departments/Administrative-Services/Utilities-Water, accessed December 15, 2022.

The City of South Gate is a member of the Los Angeles Integrated Waste Management Authority, a regional agency, also known as LARA, which is a consortium of 16 cities in Los Angeles County. The General Plan indicates that the City has approved a number of private sector businesses that recycle materials including Interior Removal Specialists, Pacific Coast Metals, Hanson Aggregates, Inc., and the Sanitation Districts South Gate Transfer Station; the City diverted 47 percent of its solid waste in 2002 and LARA, in which the City is a member, had a diversion rate of 59 percent in 2006.

The Project proposes the removal of all existing on-site improvements and structures within the site and construction of 14 two- and three-story attached townhomes in four buildings. The proposed Project is consistent with the General Plan land use designation and the City Zoning Map.

The Municipal Code contains Title 14, *Waste Handling and Recycling.* Chapter 14.04, *Demolition-Related Recycling*, within this Title, aims to reduce landfill waste from construction and demolition debris pursuant to the California Integrated Waste Management Act of 1989. The purpose of Chapter 14.01, *Waste and Recyclables on Public Rights-of-Way,* is to regulate any person who deposits, or causes to be deposited, any solid waste or recyclable materials on the public right-of-way or on private property within public view, except in a container provided therefor as herein specified, and states that such waste shall immediately be swept up and removed. Chapter 14.02*, Residential collection*, states that every residential householder shall utilize the services of the collector having the exclusive franchise. The Municipal Code also contains Chapter 14.04, *Demolition-Related Recycling*, which regulates all construction, demolition, and renovation projects within the City, the total costs of which are, or are projected to be, greater than or equal to fifty thousand dollars or are one thousand square feet or greater ("covered projects"). Compliance with all Chapters under Municipal Code Title 14 would ensure that Project implementation would have less than significant impacts with regards to solid waste and recyclables generated through construction and operations.

Project implementation would increase solid waste disposal demands over existing conditions. Solid waste within the City is primarily disposed of at the El Sobrante Landfill located at 10910 Dawson Canyon Road in Corona. The El Sobrante Landfill has a maximum permitted throughput of 16,054 tons of waste per day; a total maximum permit capacity of 209,910,000 cubic yards; and a remaining capacity of 121,083,583 cubic yards.[61] The El Sobrante Landfill has an expected cease operation date of January 1, 2051. It is anticipated that El Sobrante Landfill will continue to receive a majority of the solid waste from the City. Solid waste generated from the Project could be accommodated at the El Sobrante Landfill or a combination of the disposal facilities currently receive solid waste for disposal from the City. As the proposed Project is consistent with the City General Plan and Zoning Map, waste generated by Project implementation has been anticipated and would not result in excess of the capacity of local infrastructure. Compliance with all federal, State, and local statutes and regulations for solid waste, including those identified under the most current CALGreen standards, would ensure Project implementation would result in less than significant impacts concerning solid waste.

Mitigation Measures: No mitigation measures are required.

[61] CalRecycle, *SWIS Facility/Site Activity Details: El Sobrante Landfill*, available at https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2280?siteID=2402, accessed December 1, 2025.

6.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the Cal Fire Hazard Severity Zone Map, the City of South Gate, including the Project site, is not located within a State Responsibility Area (SRA).[62] Further, the Project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ) within a Local Responsibility Area (LRA). The Project would be required to comply with all City and LACoFD requirements for fire prevention and safety measures, including site access.

Long Beach Boulevard provides direct access to the Project site and would serve as a primary evacuation and emergency access route within the area. The construction and operation of the proposed Project would not place any permanent physical barriers on Long Beach Boulevard. There is the potential that the traffic lanes located immediately adjacent to the Project site may be temporarily closed or controlled by construction personnel during construction activities. Construction activities would include demolition, site preparation, grading, building construction, and paving, architectural coating, and landscaping.

[62] Cal Fire, Fire Hazard Severity Zone Maps, *Fire Hazard Severity Zones in SRA*, https://experience.arcgis.com/experience/5065c998b4b0462f9ec3c6c226c610a9 , accessed December 1, 2025.

However, this would be temporary and emergency access to the Project site and surrounding area would be required to be maintained along Long Beach Boulevards at all times to ensure Project implementation would not impair emergency access and, to keep impacts below a significant level. Additionally, all construction staging would occur within the boundaries of the Project site and would not interfere with circulation along Long Beach Boulevard, or any other nearby roadways. Thus, the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. As discussed above, the Project site is not located within an SRA and is not located within a VHFHSZ within an LRA. The Project site is relatively flat and does not contain any slopes or features that would exacerbate wildfire risks. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. As discussed above, the Project site is not located within an SRA and is not located within a VHFHSZ within an LRA. The Project site is located within an urbanized area, surrounded by existing development and associated infrastructure. The Project would not require the installation or maintenance of infrastructure that may exacerbate fire risk or result in temporary or ongoing impacts to the environment.

Mitigation Measures: No mitigation measures are required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. As discussed above, the Project site is not located within an SRA and is not located within a VHFHSZ within an LRA. Further, the Project site and surrounding area is relatively flat, indicating that flooding and landslides would not impact the Project site. The Project would not expose people or structures to significant risk associated with wildfires.

Mitigation Measures: No mitigation measures are required.

6.21 Mandatory Findings of Significance

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.		X		
c. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X		
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. As discussed throughout this Initial Study, the Project does not have the potential to substantially degrade the quality of the environment or result in significant environmental impacts that cannot be reduced to a less than significant level with compliance with the established regulatory framework and implementation of mitigation measures and standard conditions of approval.

As discussed in Section 6.4, *Biological Resources*, the Project would not substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

As discussed in Section 6.5, *Cultural Resources*, the Project would not eliminate important examples of the major periods of California history or prehistory. As concluded in Section 6.5 and Section 6.18, *Tribal Cultural Resources*, the Project would result in less than significant impacts with the implementation of mitigation.

The Project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Impacts would be less than significant with the implementation of mitigation.

Mitigation Measures: No additional mitigation measures are required.

b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

Less Than Significant Impact With Mitigation Incorporated. As discussed throughout this Initial Study, the Project would not result in significant short-term or long-term environmental impacts that cannot be reduced to a less than significant level with compliance with the established regulatory framework and implementation of mitigation measures. Compliance with the regulatory requirements and implementation of mitigation measures would reduce the potential for short- and long-term environmental impacts that would occur with construction and operation of the proposed Project relevant to the environmental topical areas discussed within this Initial Study. Thus, the Project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.

Mitigation Measures: No additional mitigation measures are required.

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

Less Than Significant Impact with Mitigation Incorporated. Based on the analysis contained in this Initial Study, the proposed Project would not have cumulatively considerable impacts with implementation of Project mitigation measures. Implementation of standard conditions and mitigation measures at the Project-level would reduce the potential for the incremental effects of the proposed Project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects.

Mitigation Measures: No additional mitigation measures are required.

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

Less Than Significant Impact with Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed Project's potential impacts to human beings related to several environmental topical areas. As determined throughout this Initial Study, the proposed Project would not result in any potentially significant impacts that cannot be mitigated or reduced with implementation of mitigation measures and/or standard conditions imposed by the City. The Project would not cause a substantial adverse effect on human beings, either directly or indirectly and impacts would be less than significant.

Mitigation Measures: No additional mitigation measures are required.

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9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix A
Air Quality/Energy/Greenhouse Gas Emissions Data

9001-19 Long Beach Boulevard Residential Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

3.3. Site Preparation (2026) - Unmitigated

3.5. Grading (2026) - Unmitigated

3.7. Building Construction (2026) - Unmitigated

3.9. Building Construction (2027) - Unmitigated

3.11. Paving (2027) - Unmitigated

3.13. Architectural Coating (2028) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.2. Project Characteristics

8.2.1. Project Details

8.3. Land Use

8.4. Construction

8.4.1. Construction Phases

8.4.4. Dust from Material Movement

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

8.5.2. Area Sources

8.5.2.1. Hearths

8.5.3. Energy Usage

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	9001-19 Long Beach Boulevard Residential
Construction Start Date	7/1/2026
Operational Year	2027
Lead Agency	City of South Gate/HUD
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	0.50000
Precipitation (days)	18.4000
Location	33.9543345632335, -118.21967243867559
County	Los Angeles-South Coast
City	South Gate
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4273
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	User Defined
App Version	2022.1.1.37

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse High Rise	14.0000	Dwelling Unit	0.66000	30,700.0	900.000	—	41.0000	affordable housing development

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.05214	9.21962	10.1748	0.02567	0.41898	1.47914	1.89812	0.38547	0.69080	1.07627	—	3,533.67	3,533.67	0.18215	0.42597	6.07835	3,671.24
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.4173	4.90368	7.48670	0.01238	0.18941	0.22874	0.39669	0.17397	0.05362	0.20839	—	1,480.62	1,480.62	0.06074	0.02202	0.01878	1,488.72
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.53176	3.30697	5.28260	0.00869	0.11976	0.10581	0.22557	0.11020	0.02603	0.13534	—	1,038.63	1,038.63	0.03961	0.01521	0.16901	1,044.32
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09705	0.60352	0.96407	0.00159	0.02186	0.01931	0.04117	0.02011	0.00475	0.02470	—	171.957	171.957	0.00656	0.00252	0.02798	172.900

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.05214	9.21962	10.1748	0.02567	0.41898	1.47914	1.89812	0.38547	0.69080	1.07627	—	3,533.67	3,533.67	0.18215	0.42597	6.07835	3,671.24

2027	0.51322	4.63968	7.52820	0.01238	0.16745	0.14456	0.31201	0.15408	0.03442	0.18850	—	1,484.06	1,484.06	0.06052	0.02168	0.53676	1,492.58
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.53215	4.90368	7.48670	0.01238	0.18941	0.14456	0.33397	0.17397	0.03442	0.20839	—	1,480.62	1,480.62	0.06074	0.02202	0.01527	1,488.72
2027	0.54167	4.65032	7.43631	0.01238	0.16795	0.22874	0.39669	0.15451	0.05362	0.20813	—	1,477.13	1,477.13	0.05663	0.02168	0.01878	1,485.02
2028	11.4173	0.81596	1.21502	0.00173	0.01536	0.02635	0.04171	0.01413	0.00618	0.02030	—	158.464	158.464	0.00573	0.00204	0.00194	159.217
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.19024	1.74433	2.54418	0.00418	0.06573	0.08255	0.14829	0.06043	0.02603	0.08646	—	496.418	496.418	0.02068	0.01021	0.10241	500.081
2027	0.36777	3.30697	5.28260	0.00869	0.11976	0.10581	0.22557	0.11020	0.02514	0.13534	—	1,038.63	1,038.63	0.03961	0.01521	0.16901	1,044.32
2028	0.53176	0.03800	0.05680	0.00008	0.00072	0.00121	0.00193	0.00066	0.00028	0.00094	—	7.39766	7.39766	0.00027	0.00009	0.00151	7.43414
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.03472	0.31834	0.46431	0.00076	0.01200	0.01507	0.02706	0.01103	0.00475	0.01578	—	82.1877	82.1877	0.00342	0.00169	0.01695	82.7941
2027	0.06712	0.60352	0.96407	0.00159	0.02186	0.01931	0.04117	0.02011	0.00459	0.02470	—	171.957	171.957	0.00656	0.00252	0.02798	172.900
2028	0.09705	0.00694	0.01037	0.00001	0.00013	0.00022	0.00035	0.00012	0.00005	0.00017	—	1.22477	1.22477	0.00004	0.00002	0.00025	1.23081

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.04267	0.18281	2.85108	0.00491	0.00342	0.45861	0.46203	0.00312	0.11646	0.11958	6.52010	552.467	558.987	0.68397	0.02289	1.74244	584.651
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.96956	0.19170	1.91056	0.00467	0.00305	0.45861	0.46166	0.00283	0.11646	0.11929	6.52010	529.513	536.033	0.68506	0.02390	0.25935	560.539
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	1.00263	0.18892	2.40451	0.00451	0.00315	0.43090	0.43405	0.00289	0.10944	0.11233	6.52010	512.804	519.324	0.68365	0.02292	0.84494	544.091
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.18298	0.03448	0.43882	0.00082	0.00058	0.07864	0.07921	0.00053	0.01997	0.02050	1.07948	84.9005	85.9800	0.11319	0.00380	0.13989	90.0804

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.26333	0.17522	2.05626	0.00487	0.00305	0.45861	0.46166	0.00283	0.11646	0.11929	—	498.219	498.219	0.02466	0.01984	1.52256	506.270
Area	0.77934	0.00759	0.79482	0.00003	0.00038	—	0.00038	0.00029	—	0.00029	0.00000	2.12362	2.12362	0.00009	0.00002	—	2.13109
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	48.6777	48.6777	0.00464	0.00056	—	48.9613
Water	—	—	—	—	—	—	—	—	—	—	0.99996	3.44693	4.44689	0.10286	0.00248	—	7.75630
Waste	—	—	—	—	—	—	—	—	—	—	5.52014	0.00000	5.52014	0.55172	0.00000	—	19.3131
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21987	0.21987
Total	1.04267	0.18281	2.85108	0.00491	0.00342	0.45861	0.46203	0.00312	0.11646	0.11958	6.52010	552.467	558.987	0.68397	0.02289	1.74244	584.651
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.25994	0.19170	1.91056	0.00467	0.00305	0.45861	0.46166	0.00283	0.11646	0.11929	—	477.388	477.388	0.02584	0.02086	0.03948	484.289
Area	0.70962	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	48.6777	48.6777	0.00464	0.00056	—	48.9613
Water	—	—	—	—	—	—	—	—	—	—	0.99996	3.44693	4.44689	0.10286	0.00248	—	7.75630
Waste	—	—	—	—	—	—	—	—	—	—	5.52014	0.00000	5.52014	0.55172	0.00000	—	19.3131
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21987	0.21987
Total	0.96956	0.19170	1.91056	0.00467	0.00305	0.45861	0.46166	0.00283	0.11646	0.11929	6.52010	529.513	536.033	0.68506	0.02390	0.25935	560.539
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.24525	0.18373	1.86011	0.00449	0.00290	0.43090	0.43379	0.00269	0.10944	0.11214	—	459.224	459.224	0.02437	0.01987	0.62507	466.381
Area	0.75738	0.00520	0.54440	0.00002	0.00026	—	0.00026	0.00020	—	0.00020	0.00000	1.45454	1.45454	0.00006	0.00001	—	1.45965
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	48.6777	48.6777	0.00464	0.00056	—	48.9613
Water	—	—	—	—	—	—	—	—	—	—	0.99996	3.44693	4.44689	0.10286	0.00248	—	7.75630
Waste	—	—	—	—	—	—	—	—	—	—	5.52014	0.00000	5.52014	0.55172	0.00000	—	19.3131
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21987	0.21987	
Total	1.00263	0.18892	2.40451	0.00451	0.00315	0.43090	0.43405	0.00289	0.10944	0.11233	6.52010	512.804	519.324	0.68365	0.02292	0.84494	544.091
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04476	0.03353	0.33947	0.00082	0.00053	0.07864	0.07917	0.00049	0.01997	0.02046	—	76.0299	76.0299	0.00404	0.00329	0.10349	77.2146
Area	0.13822	0.00095	0.09935	< 0.000005	0.00005	—	0.00005	0.00004	—	0.00004	0.00000	0.24081	0.24081	0.00001	< 0.000005	—	0.24166
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	8.05915	8.05915	0.00077	0.00009	—	8.10610
Water	—	—	—	—	—	—	—	—	—	—	0.16555	0.57068	0.73623	0.01703	0.00041	—	1.28414
Waste	—	—	—	—	—	—	—	—	—	—	0.91392	0.00000	0.91392	0.09134	0.00000	—	3.19750
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03640	0.03640	
Total	0.18298	0.03448	0.43882	0.00082	0.00058	0.07864	0.07921	0.00053	0.01997	0.02050	1.07948	84.9005	85.9800	0.11319	0.00380	0.13989	90.0804

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44081	4.09093	5.57793	0.00877	0.13431	—	0.13431	0.12356	—	0.12356	—	851.928	851.928	0.03456	0.00691	—	854.851
Demolition	—	—	—	—	—	0.01854	0.01854	—	0.00281	0.00281	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03985	0.36986	0.50431	0.00079	0.01214	—	0.01214	0.01117	—	0.01117	—	77.0236	77.0236	0.00312	0.00062	—	77.2879
Demolition	—	—	—	—	—	0.00168	0.00168	—	0.00025	0.00025	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00727	0.06750	0.09204	0.00014	0.00222	—	0.00222	0.00204	—	0.00204	—	12.7521	12.7521	0.00052	0.00010	—	12.7959
Demolition	—	—	—	—	—	0.00031	0.00031	—	0.00005	0.00005	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03682	0.03880	0.64584	0.00000	0.00000	0.13071	0.13071	0.00000	0.03064	0.03064	—	135.487	135.487	0.00562	0.00474	0.45842	137.498
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00026	0.01983	0.00781	0.00011	0.00021	0.00449	0.00471	0.00021	0.00123	0.00144	—	16.4900	16.4900	0.00091	0.00263	0.03699	17.3350
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00329	0.00429	0.05215	0.00000	0.00000	0.01168	0.01168	0.00000	0.00274	0.00274	—	11.7840	11.7840	0.00053	0.00043	0.01793	11.9428
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00002	0.00189	0.00071	0.00001	0.00002	0.00040	0.00042	0.00002	0.00011	0.00013	—	1.49114	1.49114	0.00008	0.00024	0.00144	1.56563
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00060	0.00078	0.00952	0.00000	0.00000	0.00213	0.00213	0.00000	0.00050	0.00050	—	1.95098	1.95098	0.00009	0.00007	0.00297	1.97727
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	< 0.000005	0.00034	0.00013	< 0.000005	< 0.000005	0.00007	0.00008	< 0.000005	0.00002	0.00002	—	0.24688	0.24688	0.00001	0.00004	0.00024	0.25921

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43578	3.73818	5.54403	0.00793	0.18506	—	0.18506	0.17026	—	0.17026	—	858.447	858.447	0.03482	0.00696	—	861.393
Dust From Material Movement	—	—	—	—	—	0.13838	0.13838	—	0.01496	0.01496	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00358	0.03072	0.04557	0.00007	0.00152	—	0.00152	0.00140	—	0.00140	—	7.05573	7.05573	0.00029	0.00006	—	7.07994
Dust From Material Movement	—	—	—	—	—	0.00114	0.00114	—	0.00012	0.00012	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00065	0.00561	0.00832	0.00001	0.00028	—	0.00028	0.00026	—	0.00026	—	1.16816	1.16816	0.00005	0.00001	—	1.17217
Dust From Material Movement	—	—	—	—	—	0.00021	0.00021	—	0.00002	0.00002	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01841	0.01940	0.32292	0.00000	0.00000	0.06535	0.06535	0.00000	0.01532	0.01532	—	67.7434	67.7434	0.00281	0.00237	0.22921	68.7492
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04141	3.13534	1.23470	0.01775	0.03380	0.71070	0.74450	0.03380	0.19458	0.22838	—	2,607.48	2,607.48	0.14451	0.41664	5.84914	2,741.10
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00015	0.00019	0.00237	0.00000	0.00000	0.00053	0.00053	0.00000	0.00012	0.00012	—	0.53564	0.53564	0.00002	0.00002	0.00081	0.54286
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00033	0.02711	0.01019	0.00015	0.00028	0.00579	0.00607	0.00028	0.00159	0.00186	—	21.4351	21.4351	0.00119	0.00342	0.02066	22.5060
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00003	0.00004	0.00043	0.00000	0.00000	0.00010	0.00010	0.00000	0.00002	0.00002	—	0.08868	0.08868	< 0.000005	< 0.000005	0.00013	0.08988
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00006	0.00495	0.00186	0.00003	0.00005	0.00106	0.00111	0.00005	0.00029	0.00034	—	3.54883	3.54883	0.00020	0.00057	0.00342	3.72612

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02452	9.19052	9.69044	0.01582	0.41898	—	0.41898	0.38547	—	0.38547	—	1,714.25	1,714.25	0.06954	0.01391	—	1,720.14
Dust From Material Movement	—	—	—	—	—	1.38110	1.38110	—	0.66782	0.66782	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01965	0.17626	0.18584	0.00030	0.00804	—	0.00804	0.00739	—	0.00739	—	32.8761	32.8761	0.00133	0.00027	—	32.9889
Dust From Material Movement	—	—	—	—	—	0.02649	0.02649	—	0.01281	0.01281	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00359	0.03217	0.03392	0.00006	0.00147	—	0.00147	0.00135	—	0.00135	—	5.44301	5.44301	0.00022	0.00004	—	5.46169
Dust From Material Movement	—	—	—	—	—	0.00483	0.00483	—	0.00234	0.00234	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02761	0.02910	0.48438	0.00000	0.00000	0.09803	0.09803	0.00000	0.02298	0.02298	—	101.615	101.615	0.00422	0.00355	0.34382	103.124
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00052	0.00068	0.00830	0.00000	0.00000	0.00186	0.00186	0.00000	0.00044	0.00044	—	1.87473	1.87473	0.00008	0.00007	0.00285	1.90000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00010	0.00012	0.00151	0.00000	0.00000	0.00034	0.00034	0.00000	0.00008	0.00008	—	0.31038	0.31038	0.00001	0.00001	0.00047	0.31457
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49393	4.80600	6.90565	0.01205	0.18874	—	0.18874	0.17364	—	0.17364	—	1,304.47	1,304.47	0.05291	0.01058	—	1,308.94

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49393	4.80600	6.90565	0.01205	0.18874	—	0.18874	0.17364	—	0.17364	—	1,304.47	1,304.47	0.05291	0.01058	—	1,308.94
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11406	1.10980	1.59465	0.00278	0.04358	—	0.04358	0.04010	—	0.04010	—	301.227	301.227	0.01222	0.00244	—	302.261
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02082	0.20254	0.29102	0.00051	0.00795	—	0.00795	0.00732	—	0.00732	—	49.8716	49.8716	0.00202	0.00040	—	50.0427
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03711	0.03911	0.65101	0.00000	0.00000	0.13176	0.13176	0.00000	0.03088	0.03088	—	136.571	136.571	0.00567	0.00478	0.46209	138.598
Vendor	0.00140	0.05144	0.02488	0.00034	0.00067	0.01280	0.01348	0.00034	0.00354	0.00387	—	46.6597	46.6597	0.00194	0.00666	0.12609	48.8185
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03689	0.04389	0.55556	0.00000	0.00000	0.13176	0.13176	0.00000	0.03088	0.03088	—	129.470	129.470	0.00589	0.00478	0.01199	131.053
Vendor	0.00133	0.05379	0.02548	0.00034	0.00067	0.01280	0.01348	0.00034	0.00354	0.00387	—	46.6835	46.6835	0.00194	0.00666	0.00327	48.7194
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00847	0.01103	0.13427	0.00000	0.00000	0.03007	0.03007	0.00000	0.00704	0.00704	—	30.3384	30.3384	0.00136	0.00110	0.04616	30.7474
Vendor	0.00032	0.01249	0.00582	0.00008	0.00016	0.00293	0.00308	0.00008	0.00081	0.00089	—	10.7769	10.7769	0.00045	0.00154	0.01256	11.2589
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00155	0.00201	0.02450	0.00000	0.00000	0.00549	0.00549	0.00000	0.00129	0.00129	—	5.02287	5.02287	0.00023	0.00018	0.00764	5.09058
Vendor	0.00006	0.00228	0.00106	0.00001	0.00003	0.00053	0.00056	0.00001	0.00015	0.00016	—	1.78424	1.78424	0.00007	0.00025	0.00208	1.86404
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47604	4.55564	6.89930	0.01205	0.16712	—	0.16712	0.15375	—	0.15375	—	1,304.35	1,304.35	0.05291	0.01058	—	1,308.83
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47604	4.55564	6.89930	0.01205	0.16712	—	0.16712	0.15375	—	0.15375	—	1,304.35	1,304.35	0.05291	0.01058	—	1,308.83
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31954	3.05789	4.63104	0.00809	0.11217	—	0.11217	0.10320	—	0.10320	—	875.524	875.524	0.03552	0.00710	—	878.528

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05832	0.55807	0.84516	0.00148	0.02047	—	0.02047	0.01883	—	0.01883	—	144.953	144.953	0.00588	0.00118	—	145.450
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03578	0.03478	0.60545	0.00000	0.00000	0.13176	0.13176	0.00000	0.03088	0.03088	—	133.956	133.956	0.00567	0.00478	0.41741	135.939
Vendor	0.00140	0.04926	0.02344	0.00034	0.00034	0.01280	0.01314	0.00034	0.00354	0.00387	—	45.7566	45.7566	0.00194	0.00632	0.11935	47.8084
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03511	0.04345	0.51301	0.00000	0.00000	0.13176	0.13176	0.00000	0.03088	0.03088	—	126.998	126.998	0.00178	0.00478	0.01082	128.477
Vendor	0.00133	0.05123	0.02400	0.00034	0.00034	0.01280	0.01314	0.00034	0.00354	0.00387	—	45.7818	45.7818	0.00194	0.00632	0.00310	47.7173
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02357	0.02916	0.36188	0.00000	0.00000	0.08739	0.08739	0.00000	0.02047	0.02047	—	86.5030	86.5030	0.00119	0.00321	0.12075	87.6093
Vendor	0.00092	0.03460	0.01593	0.00023	0.00023	0.00851	0.00874	0.00023	0.00235	0.00258	—	30.7204	30.7204	0.00130	0.00424	0.03456	32.0520
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00430	0.00532	0.06604	0.00000	0.00000	0.01595	0.01595	0.00000	0.00374	0.00374	—	14.3216	14.3216	0.00020	0.00053	0.01999	14.5047
Vendor	0.00017	0.00631	0.00291	0.00004	0.00004	0.00155	0.00159	0.00004	0.00043	0.00047	—	5.08611	5.08611	0.00022	0.00070	0.00572	5.30658
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48071	4.15212	5.30895	0.00857	0.16795	—	0.16795	0.15451	—	0.15451	—	823.016	823.016	0.03339	0.00668	—	825.840
Paving	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02107	0.18201	0.23272	0.00038	0.00736	—	0.00736	0.00677	—	0.00677	—	36.0774	36.0774	0.00146	0.00029	—	36.2012
Paving	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00385	0.03322	0.04247	0.00007	0.00134	—	0.00134	0.00124	—	0.00124	—	5.97303	5.97303	0.00024	0.00005	—	5.99353
Paving	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06096	0.07543	0.89064	0.00000	0.00000	0.22874	0.22874	0.00000	0.05362	0.05362	—	220.483	220.483	0.00309	0.00829	0.01878	223.051
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00267	0.00331	0.04103	0.00000	0.00000	0.00991	0.00991	0.00000	0.00232	0.00232	—	9.80760	9.80760	0.00014	0.00036	0.01369	9.93303
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00049	0.00060	0.00749	0.00000	0.00000	0.00181	0.00181	0.00000	0.00042	0.00042	—	1.62376	1.62376	0.00002	0.00006	0.00227	1.64453
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.13. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	11.3031	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.00500	0.03764	0.05209	0.00008	0.00072	—	0.00072	0.00066	—	0.00066	—	6.21860	6.21860	0.00025	0.00005	—	6.23994
Architectural Coatings	0.52645	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00091	0.00687	0.00951	0.00001	0.00013	—	0.00013	0.00012	—	0.00012	—	1.02956	1.02956	0.00004	0.00001	—	1.03309
Architectural Coatings	0.09608	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00684	0.00782	0.09669	0.00000	0.00000	0.02635	0.02635	0.00000	0.00618	0.00618	—	24.9468	24.9468	0.00031	0.00096	0.00194	25.2413
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00032	0.00036	0.00471	0.00000	0.00000	0.00121	0.00121	0.00000	0.00028	0.00028	—	1.17906	1.17906	0.00001	0.00004	0.00151	1.19419
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00006	0.00007	0.00086	0.00000	0.00000	0.00022	0.00022	0.00000	0.00005	0.00005	—	0.19521	0.19521	< 0.000005	0.00001	0.00025	0.19771
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.26333	0.17522	2.05626	0.00487	0.00305	0.45861	0.46166	0.00283	0.11646	0.11929	—	498.219	498.219	0.02466	0.01984	1.52256	506.270
Total	0.26333	0.17522	2.05626	0.00487	0.00305	0.45861	0.46166	0.00283	0.11646	0.11929	—	498.219	498.219	0.02466	0.01984	1.52256	506.270
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.25994	0.19170	1.91056	0.00467	0.00305	0.45861	0.46166	0.00283	0.11646	0.11929	—	477.388	477.388	0.02584	0.02086	0.03948	484.289
Total	0.25994	0.19170	1.91056	0.00467	0.00305	0.45861	0.46166	0.00283	0.11646	0.11929	—	477.388	477.388	0.02584	0.02086	0.03948	484.289
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.04476	0.03353	0.33947	0.00082	0.00053	0.07864	0.07917	0.00049	0.01997	0.02046	—	76.0299	76.0299	0.00404	0.00329	0.10349	77.2146
Total	0.04476	0.03353	0.33947	0.00082	0.00053	0.07864	0.07917	0.00049	0.01997	0.02046	—	76.0299	76.0299	0.00404	0.00329	0.10349	77.2146

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	48.6777	48.6777	0.00464	0.00056	—	48.9613
Total	—	—	—	—	—	—	—	—	—	—	—	48.6777	48.6777	0.00464	0.00056	—	48.9613
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	48.6777	48.6777	0.00464	0.00056	—	48.9613
Total	—	—	—	—	—	—	—	—	—	—	—	48.6777	48.6777	0.00464	0.00056	—	48.9613
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	8.05915	8.05915	0.00077	0.00009	—	8.10610
Total	—	—	—	—	—	—	—	—	—	—	—	8.05915	8.05915	0.00077	0.00009	—	8.10610

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Consumer Products	0.65698	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	0.05264	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06972	0.00759	0.79482	0.00003	0.00038	—	0.00038	0.00029	—	0.00029	—	2.12362	2.12362	0.00009	0.00002	—	2.13109
Total	0.77934	0.00759	0.79482	0.00003	0.00038	—	0.00038	0.00029	—	0.00029	0.00000	2.12362	2.12362	0.00009	0.00002	—	2.13109
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Consumer Products	0.65698	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05264	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.70962	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Consumer Products	0.11990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00961	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00871	0.00095	0.09935	< 0.000005	0.00005	—	0.00005	0.00004	—	0.00004	—	0.24081	0.24081	0.00001	< 0.000005	—	0.24166
Total	0.13822	0.00095	0.09935	< 0.000005	0.00005	—	0.00005	0.00004	—	0.00004	0.00000	0.24081	0.24081	0.00001	< 0.000005	—	0.24166

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	0.99996	3.44693	4.44689	0.10286	0.00248	—	7.75630
Total	—	—	—	—	—	—	—	—	—	—	0.99996	3.44693	4.44689	0.10286	0.00248	—	7.75630
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	0.99996	3.44693	4.44689	0.10286	0.00248	—	7.75630
Total	—	—	—	—	—	—	—	—	—	—	0.99996	3.44693	4.44689	0.10286	0.00248	—	7.75630
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	0.16555	0.57068	0.73623	0.01703	0.00041	—	1.28414
Total	—	—	—	—	—	—	—	—	—	—	0.16555	0.57068	0.73623	0.01703	0.00041	—	1.28414

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	5.52014	0.00000	5.52014	0.55172	0.00000	—	19.3131
Total	—	—	—	—	—	—	—	—	—	—	5.52014	0.00000	5.52014	0.55172	0.00000	—	19.3131
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	5.52014	0.00000	5.52014	0.55172	0.00000	—	19.3131
Total	—	—	—	—	—	—	—	—	—	—	5.52014	0.00000	5.52014	0.55172	0.00000	—	19.3131
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	0.91392	0.00000	0.91392	0.09134	0.00000	—	3.19750
Total	—	—	—	—	—	—	—	—	—	—	0.91392	0.00000	0.91392	0.09134	0.00000	—	3.19750

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21987	0.21987
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21987	0.21987
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21987	0.21987
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21987	0.21987
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03640	0.03640
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03640	0.03640

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/8/2026	8/21/2026	5.00000	33.0000	—
Site Preparation	Site Preparation	8/22/2026	8/26/2026	5.00000	3.00000	—
Grading	Grading	8/27/2026	9/4/2026	5.00000	7.00000	—
Building Construction	Building Construction	9/5/2026	12/9/2027	5.00000	329.000	—
Paving	Paving	12/10/2027	12/31/2027	5.00000	16.0000	—
Architectural Coating	Architectural Coating	1/02/2028	1/25/2028	5.00000	17.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Rubber Tired Dozers	Diesel	Average	1.000000	1.000000	367.000	0.40000
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00000	6.00000	84.0000	0.37000
Site Preparation	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	6.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	6.00000	367.000	0.40000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	7.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	4.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	2.00000	6.00000	82.0000	0.20000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Paving	Cement and Mortar Mixers	Diesel	Average	4.00000	6.00000	10.00000	0.56000
Paving	Pavers	Diesel	Average	1.000000	7.00000	81.0000	0.42000
Paving	Rollers	Diesel	Average	1.000000	7.00000	36.0000	0.38000
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	7.00000	84.0000	0.37000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	10.00000	18.5000	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2000	HHDT,MHDT
Demolition	Hauling	0.24242	20.0000	HHDT

Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	5.00000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2000	HHDT,MHDT
Site Preparation	Hauling	38.3333	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	7.50000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	—	10.2000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	10.0800	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	1.49660	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	17.5000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	—	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	2.01600	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	62,167.5	20,722.5	0.00000	0.00000	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	650.000	0.00000
Site Preparation	557.000	357.140	0.50000	0.00000	0.00000
Grading	—	—	5.25000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Condo/Townhouse High Rise	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00000	531.983	0.03300	0.00400
2027	0.00000	531.983	0.03300	0.00400
2028	0.00000	531.983	0.03300	0.00400

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Condo/Townhouse High Rise	86.9400	78.5400	65.3800	30,170.9	647.206	584.674	486.707	224,601

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Condo/Townhouse High Rise	Wood Fireplaces	0	0
Condo/Townhouse High Rise	Gas Fireplaces	0	0
Condo/Townhouse High Rise	Propane Fireplaces	0	0
Condo/Townhouse High Rise	Electric Fireplaces	0	0
Condo/Townhouse High Rise	No Fireplaces	14	14
Condo/Townhouse High Rise	Conventional Wood Stoves	0	0
Condo/Townhouse High Rise	Catalytic Wood Stoves	0	0
Condo/Townhouse High Rise	Non-Catalytic Wood Stoves	0	0
Condo/Townhouse High Rise	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
62,167.5	20,722.5	0.00000	0.00000	—

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse High Rise	51,321.7	346.196	0.0330	0.0040	—

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse High Rise	521,833	15,427.0

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse High Rise	10.2426	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000

Condo/Townhouse High Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.60000	annual days of extreme heat
Extreme Precipitation	4.95000	annual days with precipitation above 20 mm
Sea Level Rise	0.00000	meters of inundation depth
Wildfire	0.00000	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	1	4

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	39.9876
AQ-PM	82.6136
AQ-DPM	87.0566
Drinking Water	85.5002
Lead Risk Housing	99.1430
Pesticides	0.00000
Toxic Releases	93.2483
Traffic	59.3375
Effect Indicators	—
CleanUp Sites	98.8055
Groundwater	54.5243
Haz Waste Facilities/Generators	64.6327
Impaired Water Bodies	0.00000
Solid Waste	35.7159
Sensitive Population	—
Asthma	59.5588
Cardio-vascular	82.2906
Low Birth Weights	65.3580
Socioeconomic Factor Indicators	—
Education	95.8745
Housing	77.5792
Linguistic	91.2167
Poverty	88.8065
Unemployment	94.5211

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	27.34505325
Employed	71.97484922
Median HI	27.79417426
Education	—
Bachelor's or higher	10.07314256
High school enrollment	100
Preschool enrollment	51.30245092
Transportation	—
Auto Access	20.21044527
Active commuting	87.73258052
Social	—
2-parent households	28.71808033
Voting	19.72282818
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	63.98049532
Supermarket access	54.27948159
Tree canopy	57.2308482
Housing	—
Homeownership	23.21314
Housing habitability	19.76132427
Low-inc homeowner severe housing cost burden	19.88964455
Low-inc renter severe housing cost burden	43.53907353

Uncrowded housing	8.571795201
Health Outcomes	—
Insured adults	2.887206467
Arthritis	79.8
Asthma ER Admissions	48.7
High Blood Pressure	79.9
Cancer (excluding skin)	93.3
Asthma	32.2
Coronary Heart Disease	54.4
Chronic Obstructive Pulmonary Disease	50.7
Diagnosed Diabetes	18.3
Life Expectancy at Birth	63.1
Cognitively Disabled	62.4
Physically Disabled	84.3
Heart Attack ER Admissions	12.2
Mental Health Not Good	13.3
Chronic Kidney Disease	20.1
Obesity	12.1
Pedestrian Injuries	89.1
Physical Health Not Good	13.1
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	48.9
Current Smoker	21.4
No Leisure Time for Physical Activity	15.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	55.0
Elderly	84.2
English Speaking	10.2
Foreign-born	87.6
Outdoor Workers	24.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	9.9
Traffic Density	67.0
Traffic Access	87.4
Other Indices	—
Hardship	87.0
Other Decision Support	—
2016 Voting	16.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	97.0000
Healthy Places Index Score for Project Location (b)	29.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	SouthGate, FlorenceFirestone,

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	No natural gas service for project. Electric only project.
Land Use	14 townhouses with a total of 30,700 square feet (total) of building space. Assumes 900 sf of landscaping (i.e. along project frontage along Long Beach boulevard). Total lot acreage is 0.66 acres.
Construction: Construction Phases	Based on anticipated schedule from developer.
Construction: Dust From Material Movement	Accounts for remediation activities and estimated import. 357 cy based on 375 tons of contaminated fill + import of 200 cy and 357 cy to replace with clean fill. Info from developer.
Operations: Vehicle Data	Trip rate revised to be consistent with traffic study prepared by MAT Engineering, Inc. (December 1, 2022). 5.285714286 trips/day/dwelling unit. Derived based on the net total trips per day for the project as a whole (i.e. 74 daily project trips total).
Operations: Hearths	No hearths.
Operations: Energy Use	No natural gas usage (project is all-electric).

8.2. Project Characteristics

8.2.1. Project Details

Model Parameter	Default Value	New Value
Gas Utility	Southern California Gas	User Defined

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	0.00000	0.66000

Building Area	sq. ft	0.00000	30,700.0
Landscape Area	sq. ft	—	900.000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Demolition	Demolition	Start Date	7/1/2026	7/8/2026
Demolition	Demolition	End Date	7/15/2026	8/21/2026
Demolition	Demolition	Work Days per Phase	10.00000	33.0000
Site Preparation	Site Preparation	Start Date	7/16/2026	8/22/2026
Site Preparation	Site Preparation	End Date	7/17/2026	8/26/2026
Site Preparation	Site Preparation	Work Days per Phase	1.000000	3.00000
Grading	Grading	Start Date	7/18/2026	8/27/2026
Grading	Grading	End Date	7/20/2026	9/4/2026
Grading	Grading	Work Days per Phase	2.00000	7.00000
Building Construction	Building Construction	Start Date	7/21/2026	9/5/2026
Building Construction	Building Construction	End Date	12/8/2026	12/9/2027
Building Construction	Building Construction	Work Days per Phase	100.0000	329.000
Paving	Paving	Start Date	12/9/2026	12/10/2027
Paving	Paving	End Date	12/16/2026	12/31/2027
Paving	Paving	Work Days per Phase	5.00000	16.0000
Architectural Coating	Architectural Coating	Start Date	12/17/2026	1/02/2028
Architectural Coating	Architectural Coating	End Date	12/24/2026	1/25/2028
Architectural Coating	Architectural Coating	Work Days per Phase	5.00000	17.0000

8.4.4. Dust from Material Movement

Phase Name	Model Parameter	Units	Default Value	New Value

Site Preparation	Material Imported	Cubic Yards	—	557.000
Site Preparation	Material Exported	Cubic Yards	—	357.140
Site Preparation	Total Acres Graded	acres	1.50000	0.50000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Condo/Townhouse High Rise	Weekday Trip Rate	size/day	5.44000	6.21000
Condo/Townhouse High Rise	Saturday Trip Rate	size/day	4.91000	5.61000
Condo/Townhouse High Rise	Sunday Trip Rate	size/day	4.09000	4.67000

8.5.2. Area Sources

8.5.2.1. Hearths

Land Use	Model Parameter	Units	Default Value	New Value
Condo/Townhouse High Rise	Wood Fireplaces	—	1	0
Condo/Townhouse High Rise	Gas Fireplaces	—	12	0
Condo/Townhouse High Rise	No Fireplaces	—	1	14
Condo/Townhouse High Rise	Hours/Day	—	3	0
Condo/Townhouse High Rise	Days/Year	—	25	0
Condo/Townhouse High Rise	Wood Mass	lb/year	1,019	0
Condo/Townhouse High Rise	Catalytic Wood Stoves	—	1	0
Condo/Townhouse High Rise	Non-Catalytic Wood Stoves	—	1	0
Condo/Townhouse High Rise	Days/Year	—	25	0
Condo/Townhouse High Rise	Wood Mass	lb/year	1,000	0

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value
Condo/Townhouse High Rise	Natural Gas	kBTU/yr	155,496	—
Condo/Townhouse High Rise	Natural Gas (Subject to Title 24)	kBTU/yr	135,477	—
Condo/Townhouse High Rise	Natural Gas (Not Subject to Title 24)	kBTU/yr	20,018.7	0.00000

Energy Use Summary

Construction Source	Gasoline (gallons)	Diesel (gallons)
Construction Vehicles	991	6,722
Worker Trips	1,636	7,038
Vendor Trips	1	723
Haul Trucks	90	21
Total	**2,719**	**14,504**

Operations Phase (gallons/year)		Gasoline	Diesel	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
Single Family Housing		7,966	671	0	51321.6774
	0	0	0	0	0
All Land Uses		**7,966**	**671**	**0**	**0**

Operations Onroad Energy Use

Year 2023
Air District South Coast AQMD

Vehicle Types	MPG by Fuel Type						Population by Fuel Type						
	Gasoline	Diesel	Natural Gas	Electricity	Plug-in Hybrid	Fuel Cell Electri	Gasoline	Diesel	Natural Gas	Electricity	Plug-in Hybrid	Fuel Cell Electrix	Total
LDA	26.6	36.3	0.0	0.0	58.8	0.0	4,181,876	8,030	0	1,013,024	166,212	5,005	5,374,148
LDT1	22.5	22.5	0.0	0.0	53.7	0.0	445,823	67	0	20,226	1,198	0	467,314
LDT2	22.7	31.5	0.0	0.0	52.5	0.0	2,564,926	4,634	0	227,950	41,506	0	2,839,017
LHDT1	14.2	20.7	0.0	0.0	0.0	0.0	190,584	90,863	0	6,797	0	411	288,654
LHDT2	13.3	18.2	0.0	0.0	0.0	0.0	40,623	84,641	0	6,095	0	372	131,731
MCY	39.2	0.0	0.0	0.0	0.0	0.0	260,781	0	0	0	0	0	260,781
MDV	18.5	24.4	0.0	0.0	51.4	0.0	1,606,963	50,934	0	126,265	21,549	0	1,805,711
MH	4.9	10.1	0.0	0.0	0.0	0.0	33,194	13,700	0	0	0	0	46,894
MHDT	5.4	8.9	8.3	0.0	0.0	0.0	32,099	116,766	1,024	4,833	0	363	155,084
HHDT	3.9	6.5	6.4	0.0	0.0	0.0	119	104,097	9,713	3,031	0	394	117,353
OBUS	5.1	7.6	324.2	0.0	0.0	0.0	4,837	2,787	691	430	0	14	8,759
SBUS	9.3	7.4	4.2	0.0	0.0	0.0	2,764	2,383	3,419	223	0	9	8,797
UBUS	5.1	6.1	3.5	0.0	0.0	0.0	824	11	4,983	615	0	18	6,451
							9,365,414	478,913	19,829	1,409,488	230,465	6,585	11,510,695
							81%	4%	0%	12%	2%	0%	

Trips/Day	Trips/day	Trips/day	Trips/day	Total	VMT/day	VMT/day	VMT/day	Trip Length						
Land Use	Weekday	Saturday	Sunday	Weekly	Weekday	Saturday	Sunday						14%	LDA
Single Family Housing	86.94	78.54	65.38	578.62	649	586	488	7.46						
				0	0	0	0	#DIV/0!						
				0	0	0	0	#DIV/0!						
				0	0	0	0	#DIV/0!						
				0	0	0	0	#DIV/0!						
				0	0	0	0	#DIV/0!						
				0	0	0	0	#DIV/0!						
				0	0	0	0	#DIV/0!						
				0	0	0	0	#DIV/0!						
				0	0	0	0	#DIV/0!						
Total	0	0	0	579	649	586	488							

Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Total
Single Family Housing	51.17532609	4.472811520	22.77601361	13.86772543	2.569858730	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%
0	51.17532611	4.47281152	22.77601361	13.86772543	2.56985873	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%
0	51.17532611	4.47281152	22.77601361	13.86772543	2.56985873	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%
0	51.17532611	4.47281152	22.77601361	13.86772543	2.56985873	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%
0	51.17532611	4.47281152	22.77601361	13.86772543	2.56985873	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%
0	51.17532611	4.47281152	22.77601361	13.86772543	2.56985873	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%
0	51.17532611	4.47281152	22.77601361	13.86772543	2.56985873	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%
0	51.17532611	4.47281152	22.77601361	13.86772543	2.56985873	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%
0	51.17532611	4.47281152	22.77601361	13.86772543	2.56985873	0.630734023	1.072241832	0.831404608	0.087460497	0.062696898	2.098604292	0.064019498	0.291104405	100.0%

Vehicle Trips

Weekday

Weekday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT	Annual VMT
Single Family Housing	44	4	20	12	2	1	1	1	0	0	2	0	0	87	648.98	168,736
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
Total	44	4	20	12	2	1	1	1	0	0	2	0	0	87	649	168,736

Annual VMT
224600.822309619
-

Saturday

Saturday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT	Annual VMT
Single Family Housing	40	4	18	11	2	0	1	1	0	0	2	0	0	79	586.28	30,487
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
Total	40	4	18	11	2	0	1	1	0	0	2	0	0	79		30,487

Sunday

Sunday Trips	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT	Annual VMT
Single Family Housing	33	3	15	9	2	0	1	1	0	0	1	0	0	65	488.04	25,378
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
Total	33	3	15	9	2	0	1	1	0	0	1	0	0	65		25,378

224,601
0
0
0
0
0
0
0
0
0
224,601

Annual Total VMT
224,601

Gallons of Fuel

	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHD	Obus	Ubus	MCY	Sbus	MH	Total
	5118%	447%	2278%	1387%	257%	63%	107%	83%	9%	6%	210%	6%	29%	10000%
	42%	5%	26%	19%	3%	0%	1%	0%	0%	0%	2%	0%	1%	100%

Gasoline

	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHD	Obus	Ubus	MCY	Sbus	MH	Total	VMT
Single Family Housing	3,364	426	2,038	1,499	268	33	93	0	21	4	120	5	95	7,966	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
	3,364	426	2,038	1,499	268	33	93	0	21	4	120	5	95	7,966	#DIV/0!

Total Gallons Gasoline

Diesel

	LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total
Single Family Housing	5	0	3	36	88	50	203	254	8	0	0	5	19	671
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	0	3	36	88	50	203	254	8	0	0	5	19	671
	1%	0%	0%	5%	13%	7%	30%	38%	1%	0%	0%	1%	3%	100%

Total Gallons Diesel

8,637 Total Gallons of Diesel and Gasoline

0 Average MPG

Utilities

Land Use		NaturalGas Use kBTU/yr	Electricity Use kWh/yr
Single Family Housing			51321.6774
	0		
	0		
	0		
	0		
	0		
	0		
	0		
	0		
	0		
Total		**0**	**0**

Offroad Construction Equipment Energy Use

PhaseName	OffRoadEquipmentType	Fuel Type	Engine Tier	Quantity	UsageHours	HorsePower	Load Factor	Horsepower Category	Num Days	Year	Fuel Consumption Rate (gal/hour)	Fuel Type	Total Fuel Consumption (gal/construction period)
Demolition	Concrete/Industrial Saws	Diesel	Average	1	8	33	0.73	100	33	2026	4.7	Gasoline	909
Demolition	Rubber Tired Dozers	Diesel	Average	1	1	367	0.4	300	33	2026	4.6	Diesel	60
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2	6	84	0.37	100	33	2026	1.6	Diesel	234
Site Preparation	Graders	Diesel	Average	1	8	148	0.41	175	3	2026	3.1	Diesel	31
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1	8	84	0.37	100	3	2026	1.6	Diesel	14
Grading	Graders	Diesel	Average	1	6	148	0.41	175	7	2026	3.1	Diesel	54
Grading	Rubber Tired Dozers	Diesel	Average	1	6	367	0.4	300	7	2026	4.6	Diesel	77
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1	7	84	0.37	100	7	2026	1.6	Diesel	29
Building Constructior	Cranes	Diesel	Average	1	4	367	0.29	300	329	2026	3.3	Diesel	1,246
Building Constructior	Forklifts	Diesel	Average	2	6	82	0.2	100	329	2026	2.0	Diesel	1,583
Building Constructior	Tractors/Loaders/Backhoes	Diesel	Average	2	8	84	0.37	100	329	2026	1.6	Diesel	3,109
Paving	Cement and Mortar Mixers	Diesel	Average	4	6	10	0.56	25	16	2026	0.4	Gasoline	83
Paving	Pavers	Diesel	Average	1	7	81	0.42	100	16	2026	1.7	Diesel	82
Paving	Rollers	Diesel	Average	1	7	36	0.38	100	16	2026	1.7	Diesel	72
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1	7	84	0.37	100	16	2026	1.6	Diesel	66
Architectural Coating	Air Compressors	Diesel	Average	1	6	37	0.48	100	17	2026	1.3	Diesel	65

Total	**Gasoline**	**991**
Total	**Diesel**	**6,722**
Total	**All Fuels**	**7,714**

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix B
Cultural Resources Assessment

PALEOWEST

CULTURAL RESOURCE ASSESSMENT FOR THE 9001-9019 LONG BEACH BLVD HOUSING PROJECT, SOUTH GATE, LOS ANGELES COUNTY, CALIFORNIA

January 24, 2023



CULTURAL RESOURCE ASSESSMENT FOR THE 9001-9019 LONG BEACH BLVD HOUSING PROJECT, SOUTH GATE, LOS ANGELES COUNTY, CALIFORNIA

Prepared by:
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Tustin, CA 92780

Technical Report No.: 22-617

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San Diego, California 92110
(619) 210-0199

January 24, 2023

ABSTRACT

PaleoWest, LLC (PaleoWest) was retained by De Novo Planning Group (on behalf of Partnership Housing) to conduct a Phase I cultural resource study for the 9001-9019 Long Beach Blvd Housing Project (Project) in the city of South Gate, Los Angeles County, California. The proposed Project involves the development of three separate parcels (APNs 6204-025-900, 6204-025-901, and 6204-025-902) that includes the new construction of fourteen (14), 3-story townhomes. Each townhome will be 1,348 square feet (sq. ft.) with 3 bedrooms, 2.5 bathrooms, a 2-car garage, and a 90-square-foot patio.

Project work will take place within 3 separate parcels that total 28,750 sq. ft. The parcels will be combined to create a single parcel, and the townhome units will be sold as condominiums. The project site will include 950 sq. ft. of open common space, a 1000-square foot community center for the residents, and 5 guest parking spaces. The proposed Project is roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing building currently used as a tire shop constructed in 1941 would be demolished as part of the Project. The proposed Project is subject to the California Environmental Quality Act (CEQA) with the City of South Gate acting as the lead agency under CEQA. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

This cultural resource assessment includes the delineation of an Area of Potential Effects (APE), a California Historical Resources Information System (CHRIS) records search, Native American consultation, archival and background research, a survey of the APE, California Register of Historical Resources (CRHR)/National Register of Historic Places (NRHP)-eligibility assessment of the historic period building, and preparation of this technical report and resource records. The CHRIS records search identified 11 prior cultural resource studies and 5 previously recorded cultural resources within a 0.5-mile radius of the APE. All of these cultural resources are historic built environment resources, none of which are within the APE.

PaleoWest requested a review of the Native American Heritage Commission's Sacred Land Files (SLF) on November 15, 2022. In anticipation of the results from the SLF, PaleoWest sent letters to local Native American contacts on November 16, 2022. Negative SLF search results were received on December 8, 2022. To date, no responses from tribal contacts have been received.

A survey of the APE was conducted on November 23, 2022. No archaeological resources were identified within the APE. During the field survey, the current condition of the building at 9019 Long Beach Boulevard was analyzed, photographed, and documented. The building was then evaluated for listing on the CRHR, NRHP, and the City of South Gate's Landmark designation. The evaluation concluded the building at 9019 Long Beach Boulevard is not eligible for inclusion in the CRHR or NRHP, nor locally significant per the City of South Gate General Plan and is, therefore, not a historical resource for the purposes of CEQA nor a historic property under Section 106.

Because of the absence of known prehistoric archaeological sites in the immediate area, the sensitivity of the Project area for containing intact buried prehistoric archaeological resources is considered low. However, the density of intensive historic-era development in the Project area

suggests that the potential to encounter buried historic period archaeological resources during Project construction is moderate to high.

Based on these results, PaleoWest recommends a finding of no impacts to historical resources under CEQA and no historic properties affected under Section 106. However, PaleoWest recommends the following best management practices be implemented during Project construction.

- If cultural resources are encountered during Project related activities, work in the immediate area must halt and a qualified archaeologist should be contacted immediately to evaluate the find. If the discovery proves to be significant for listing on the CRHR and/or NRHP, additional work such as data recovery excavations may be warranted to mitigate any impacts per CEQA or adverse effects under Section 106.
- If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code § 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified within 24 hours of positive identification as human. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

CONTENTS

1 INTRODUCTION 1
- 1.1 PROJECT LOCATION AND DESCRIPTION 1
- 1.2 AREA OF POTENTIAL EFFECTS 1
- 1.3 PERSONNEL 2

2 REGULATORY SETTING 6
- 2.1 FEDERAL REGULATIONS 6
  - 2.1.1 National Historic Preservation Act 6
- 2.2 STATE REGULATIONS 7
  - 2.2.1 California Environmental Quality Act 7
- 2.3 LOCAL 8
  - 2.3.1 City of South Gate General Plan 2035 8
  - 2.3.2 City of South Gate Landmark Designation 8

3 ENVIRONMENTAL AND CULTURAL SETTING 10
- 3.1 ENVIRONMENTAL SETTING 10
- 3.2 CULTURAL SETTING 10
  - 3.2.1 Early Man Horizon (10,000 – 6,000 B.C.) 10
  - 3.2.2 Milling Stone Horizon (6,000 – 3,000 B.C.) 11
  - 3.2.3 Intermediate Horizon (3,000 B.C. – A.D. 500) 11
  - 3.2.4 Late Prehistoric Horizon (A.D. 500 – Historic Contact) 12
- 3.3 HISTORIC SETTING 12
  - 3.3.1 Spanish Period (1769-1822) 12
  - 1.1.1 Mexican Period (1822-1848) 12
  - 1.1.2 American Period (1848-Present) 13
  - 3.3.2 City of South Gate 13

4 BACKGROUND RESEARCH 15
- 4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM 15
  - 4.1.1 Previous Studies 15
  - 4.1.2 Previously Recorded Resources 16
- 4.2 HISTORIC AERIAL PHOTOGRAPHS AND MAPS 17
- 4.3 ADDITIONAL SOURCES 17
- 4.4 NATIVE AMERICAN OUTREACH 18

5 FIELDWORK 18
- 5.1 SURVEY METHODS 18
- 5.2 RESULTS 18
  - 5.2.1 Historic Period Built Environment Resource 18

6 EVALUATION OF SIGNIFICANCE 25
- 6.1 INDUSTRIAL STYLE 25
- 6.2 NRHP AND CRHR ELIGIBILITY EVALUATION 25
- 6.3 CITY OF SOUTH GATE LANDMARK ELIGIBILITY EVALUATION 26
  - 1.1.3 City of South Gate Landmark Evaluation 26

7 SUMMARY AND RECOMMENDATIONS 29
- 7.1 SUMMARY OF RESULTS 29

8 REFERENCES 30

APPENDICES

Appendix A. Record Search Summary

Appendix B. Native American Scoping
Appendix C: Department of Parks and Recreation 523 Forms
Appendix D: Paleontological Resources Memo

FIGURES

Figure 1-1. Project Location Map. 3
Figure 1-2. Map of Project APE. 4
Figure 5-1. Overview of tire shop property (9019 Long Beach Blvd), facing north. 20
Figure 5-2. Overview of tire shop property (9019 Long Beach Blvd), facing northwest. 20
Figure 5-3. Overview of edge of tire shop property from sidewalk along Long Beach Blvd, facing southwest. 21
Figure 5-4. Overview of rear of tire shop at eastern edge of tire shop property, facing southwest. 21
Figure 5-5. Overview of rear of tire shop at eastern edge of tire shop property, facing southwest/west. 22
Figure 5-6. Overview of 9001 Long Beach Blvd property, facing northwest. 22
Figure 5-7. Overview of edge of 9001 Long Beach Blvd property at intersection of Long Beach Blvd with Willow Place, facing southwest. 23
Figure 5-8. Overview of edge of 9001 Long Beach Blvd property along sidewalk on Willow Place, facing west. 23
Figure 5-9. Northwest corner of 9001 Long Beach Blvd property, facing east. 24

TABLES

Table 4-1. Previous Cultural Resource Studies within a 0.5-Mi Radius of the APE 15
Table 4-2. Previously Recorded Cultural Resources within a 0.5-Mi Radius of the APE16

1 INTRODUCTION

PaleoWest, LLC (PaleoWest) was retained by De Novo Planning Group to conduct a Phase I cultural resource study for the 9001-9019 Long Beach Blvd Housing Project (Project) in the city of South Gate, Los Angeles County, California. The proposed Project involves the development of three separate parcels (APNs 6204-025-900, 6204-025-901, and 6204-025-902) that includes the construction of fourteen (14), 3-story townhomes. The proposed Project is subject to California Environmental Quality Act (CEQA) compliance with the City of South Gate acting as the lead agency under CEQA. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106). This report documents the tasks conducted by PaleoWest, including a cultural resource records search, Native American outreach, survey, built environment resource eligibility evaluation, and preparation of this report.

1.1 PROJECT LOCATION AND DESCRIPTION

The proposed Project is located on three parcels within the addresses of 9001-9019 Long Beach Boulevard, and the APE is roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. (Figure 1-1). More specifically, it lies within unsectioned lands of the former San Antonio (Lugo) land grant, as depicted on the *South Gate, CA* U.S. Geological Survey (USGS) topographic quadrangle map. The Project area lies approximately 100 feet (ft) west of Long Beach Boulevard and 1.7-miles (mi) north of Interstate 105

The proposed Project would develop affordable housing on an approximately 0.6-acre area composed of three parcels (APNs 6204-025-900, 6204-025-901, and 6204-025-902). Two of the parcels are currently vacant, while the third parcel includes an extant building currently used as a tire shop, which would be demolished, as the three parcels will be combined into a single parcel. Fourteen three-story townhomes are being constructed within the single combined parcel. Each townhome will be 1,348 square feet (sq. ft.) with 3 bedrooms, 2.5 bathrooms, a 2-car garage, and a 90-square-foot patio. Project work will take place within three separate parcels that total 28,750 sq. ft. The parcels will be combined to create a single parcel, and the townhome units will be sold as condominiums. The project site will include 950 sq. ft. of open common space, a 1000- sq. ft. community center for the residents, and 5 guest parking spaces.

1.2 AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) of an undertaking is defined in 36 CFR 800.16(d) as the "geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such property exists." The APE is three-dimensional (depth, length, width) and includes all areas directly and indirectly affected by the proposed construction.

The APE lies within a urbanized area bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south (Figure 1-2). The multistory buildings that are proposed for the Project are generally consistent with the existing conditions of the surrounding area. Indirect effects

(visual, auditory, and/or atmospheric) are expected to be limited to construction activities and will be temporary in nature. As such, the APE is limited to the 0.6-acre property site (Figure 1-2).

The APE must be considered as a three-dimensional space and as such, should include any vertical components of the undertaking that could result in directly or indirectly altering the character or use of historic properties. The vertical height of the APE extends up to approximately 36 feet above the current ground surface. The vertical depth of the APE is 8 feet below the current ground surface.

1.3 PERSONNEL

Associate Archaeologist, Paige Kohler, M.A., was the Project Manager, conducted the Native American outreach, and was the primary author of this report. Associate Archaeologist, Gena Severen, M.A., Registered Professional Archaeologist (RPA), conducted the cultural resources records search and the pedestrian survey. Senior Archaeologist, Robert Ramirez, M.A., RPA, served as Principal Investigator for the study. Mr. Ramirez meets the Secretary of the Interior's Professional Qualifications Standards for Prehistoric and Historic Archaeology (National Park Service [NPS] 1997). Office Principal Kevin Hunt, who meets the Secretary of the Interior's Professional Qualifications Standards for History, served as the Principal in Charge for this Project.

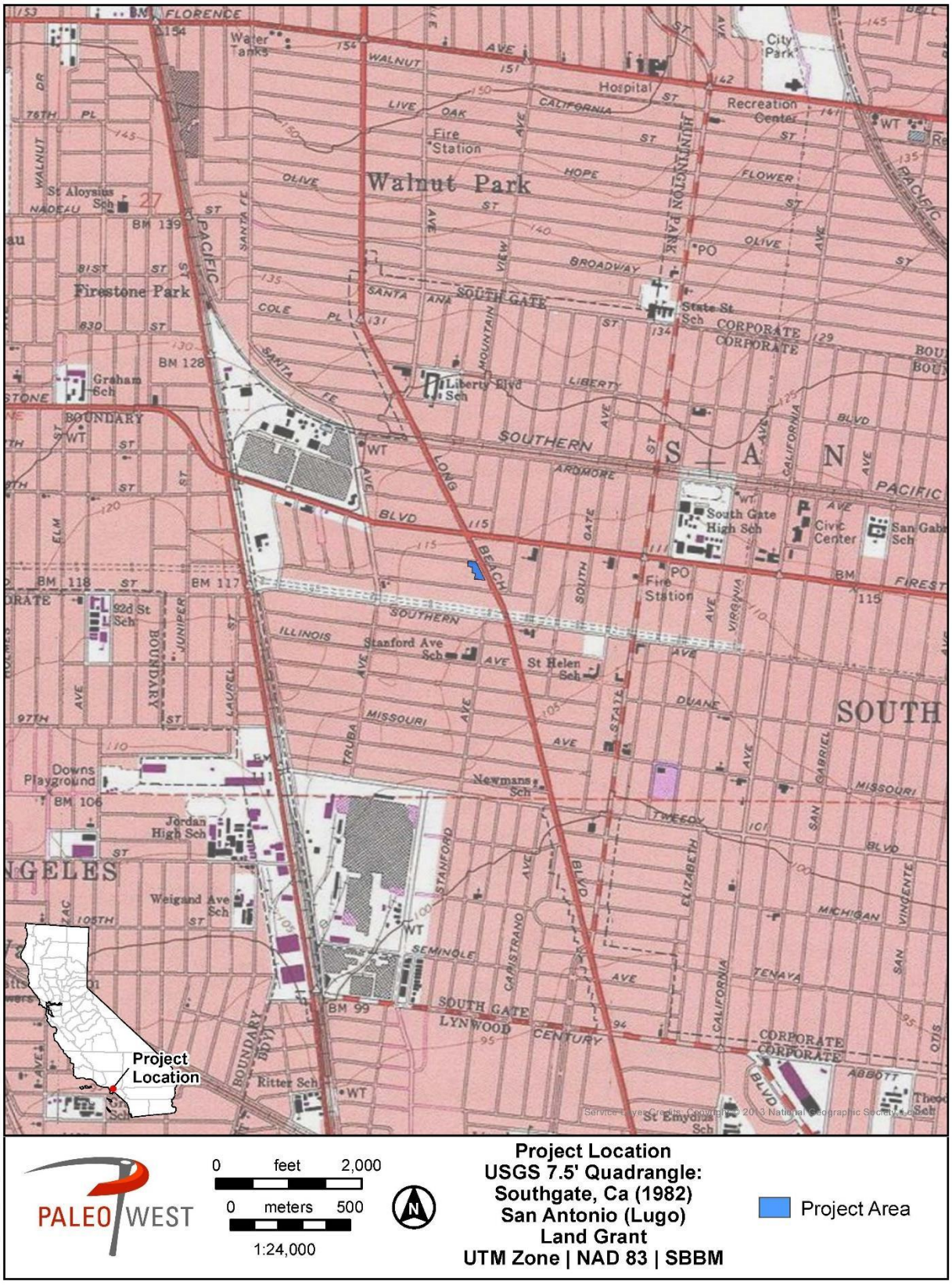


Figure 1-1. Project Location Map.



Figure 1-2. Map of Project APE.

2 REGULATORY SETTING

This section includes a discussion of the applicable laws, ordinances, regulations, and standards governing cultural resources that may pertain to the proposed Project.

2.1 FEDERAL REGULATIONS

2.1.1 National Historic Preservation Act

The National Historic Preservation Act of 1966, as amended (54 United States Code [USC] 300101 et seq.) (NHPA), sets forth the responsibilities that federal agencies must meet in regard to cultural resources, especially Section 106 and its implanting regulations in 36 CFR Part 800. Federal agencies must conduct the necessary studies and consultations to identify cultural resources that may be affected by an undertaking, evaluate cultural resources that may be affected to determine if they are eligible for the National Register of Historic Places (NRHP) (that is, whether identified resources constitute historic properties) and assess the potential for effects (adverse or not) to historic properties associated with the proposed undertaking. Historic properties are resources that are listed on or eligible for listing in the NRHP (36 CFR 800.16[l][1]). A property may be listed in the NRHP if it meets criteria provided in the NRHP regulations (36 CFR 60.4). Typically, such properties must also be 50 years or older (36 CFR 60.4[d]).

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, or association and

- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important in prehistory or history.

Section 106 defines an adverse effect as an effect that alters, directly or indirectly, the qualities that make a resource eligible for listing in the National Register (36 CFR 800.5[a][1]). Consideration must be given to the property's location, design, setting, materials, workmanship, feeling, and association, to the extent that these qualities contribute to the integrity and significance of the resource. Adverse effects may be direct and reasonably foreseeable or may be more remote in time or distance (36 CFR 8010.5[a][1]).

2.2 STATE REGULATIONS

2.2.1 California Environmental Quality Act

The proposed Project is subject to compliance with CEQA, as amended. Compliance with CEQA statutes and guidelines requires both public and private projects with financing or approval from a public agency to assess their project's impact on cultural resources (Public Resources Code Sections 21082, 21083.2 and 21084 and California Code of Regulations [CCR] 10564.5). The first step in the process is to identify cultural resources that may be impacted by the project and then determine whether the resources are "historically significant" resources.

CEQA defines historically significant resources as "resources listed or eligible for listing in the California Register of Historical Resources (CRHR)" (Public Resources Code Section 5024.1). A cultural resource may be considered historically significant if the resource is 45 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association.[1] In addition, it must meet at least one of the following criteria for listing in the CRHR:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history (Public Resources Code Section 5024.1).

Cultural resources are buildings, sites, humanly modified landscapes, traditional cultural properties, structures, or objects that may have historical, architectural, cultural, or scientific importance. CEQA states that if a project will have a significant impact on important cultural resources, deemed "historically significant," then project alternatives and mitigation measures must be considered.

California Assembly Bill 52

Signed into law in September 2014, California Assembly Bill 52 (AB 52) created a new class of resources—tribal cultural resources (TCRs)—for consideration under CEQA. TCRs may include sites, features, places, cultural landscapes, sacred places, or objects with cultural value to California Native American tribes that are listed or determined to be eligible for listing in the CRHR, included in a local register of historical resources, or a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant and eligible for listing on the CRHR. AB 52 requires that the lead CEQA agency consult with California Native American tribes that have requested consultation for projects that may affect tribal cultural resources. The lead CEQA agency shall begin consultation with participating

[1] The Office of Historic Preservation (OHP) guidelines recognize a 45-year-old criteria threshold for documenting and evaluating cultural resources (assumes a 5-year lag between resource identification and the date that planning decisions are made) (OHP 1995:2). The age threshold is an operational guideline and not specific to CEQA statutory or regulatory codes.

Native American tribes prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. Under AB 52, a project that has potential to cause a substantial adverse change to a tribal cultural resource constitutes a significant effect on the environment unless mitigation reduces such effects to a less than significant level.

2.3 LOCAL

2.3.1 City of South Gate General Plan 2035

Within the section of the South Gate General Plan 2035 (City of South Gate 2009) discussing the goals, objectives, and policies of the General Plan, the City of South Gate states that the purpose of these is to provide citywide policy on topics such as regional coordination, the preservation of the identity of the community, and the preservation of existing neighborhood character. The following goal, objective, and policies are applicable to this Project:

Goal CD 9: Preservation and protection of places, buildings, and objects that embody the City's social, commercial, architectural, and agricultural history.

- **Objective 9.1** Identify and preserve cultural and historic resources.
    - P.1: Historic or culturally significant buildings and other resources in South Gate should be preserved and enhanced to contribute to the character of the community.
    - P.3: Through direct or indirect actions, the City will cause no substantial adverse change in the significance of a historical or archaeological resource as defined in the California Environmental Quality Act.
    - P.4: All new development should not disturb archaeological sites.

2.3.2 City of South Gate Landmark Designation

The City of South Gate (2009) defines a "Landmark" as any site or improvement, manmade or natural, which has special character or special historical, cultural, architectural, community or aesthetic value as part of the heritage of the city of South Gate, state of California, or the United States and which has been designated as a landmark pursuant to the provisions of this chapter (Ord. 1576 § 1 (part), 8-8-83).

A culturally significant landmark must manifest one or more of the following criteria:

a) It possesses a significant character, interest or value attributable to the development, heritage or cultural characteristics of the city, the southern California region, the state of California or the United States of America or if it is associated with a person whose life is historically significant; or

b) It is the site of an historic event with a significant place in history; or

c) It exemplifies the cultural, political, economical, social or historical heritage of the community; or

d) It portrays the environment in an era of history characterized by a distinctive architectural style; or

e) It embodies those distinguishing characteristics of an architectural type or engineering specimen; or

f) It is the work of a person or persons whose work has significantly influenced the development of the city or the southern California region; or

g) It contains elements of design, detail, materials, or craftsmanship which represent a significant innovation; or

h) It is a part of or related to a distinctive area that is developed according to a specific historical, cultural or architectural motif; or

i) It represents an established and similar visual feature of a neighborhood or community due to its unique location or specific distinguishing characteristics; or

j) It is, or has been, a valuable information source important to the prehistory or history of the city of South Gate, the southern California region, the state of California or the United States of America.

3 ENVIRONMENTAL AND CULTURAL SETTING

3.1 ENVIRONMENTAL SETTING

The City of South Gate is located within the southern portion of the Los Angeles Basin. The Los Angeles Basin or coastal plain, is bounded on the north by the Santa Monica Mountains; the Elysian, Repetto, Merced, and Puente Hills to the northeast; the Pacific Ocean to the south and west; and is bounded by the Los Angeles–Orange County line to the southeast. The climate of the Los Angeles Basin is Mediterranean and characterized by mild, sunny winters, and warm, dry summers. Extreme heat and cold are suppressed by the Pacific Ocean and the coastal mountain ranges, which act as buffers from these climatic extremes. Urbanization has largely resulted in the planting of non-native vegetation such as lawn grass, hedges, and citrus and ornamental trees. The surface geology of South Gate is described as younger Quaternary Alluvium, derived as fluvial deposits from the floodplain of the Los Angeles River (McLeod 2017).

3.2 CULTURAL SETTING

Over the last century, archaeologists developed chronological sequences to explain prehistoric cultural changes within all or portions of southern California (c.f., Jones and Klar 2007; Moratto 1984). Wallace (1955, 1978) devised a prehistoric chronology for the southern California coastal region based on early studies and focused on data synthesis that included four horizons: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Though initially lacking the chronological precision of absolute dates (Moratto 1984:159), Wallace's (1955) synthesis has been modified and improved using thousands of radiocarbon dates obtained by southern California researchers over recent decades (Byrd and Raab 2007:217; Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994). The prehistoric chronological sequence for southern California presented below is a composite based on Wallace (1955) and Warren (1968) as well as later studies, including Koerper and Drover (1983).

3.2.1 Early Man Horizon (10,000 – 6,000 B.C.)

Numerous pre-8,000 B.C. sites have been identified along the mainland coast and Channel Islands of southern California (c.f., Erlandson 1991; Johnson et al. 2002; Jones and Klar 2007; Moratto 1984; Rick et al. 2001:609). The Arlington Springs site on Santa Rosa Island produced human femurs dated to approximately 13,000 years ago (Arnold et al. 2004; Johnson et al. 2002). On nearby San Miguel Island, human occupation at Daisy Cave (CA-SMI-261) has been dated to nearly 13,000 years ago and included basketry greater than 12,000 years old, the earliest recorded on the Pacific Coast (Arnold et al. 2004).

Although few Clovis or Folsom style fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), Early Man Horizon sites are generally associated with a greater emphasis on hunting than later horizons. Recent data indicate that the Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas (e.g., Jones et al. 2002) and on inland Pleistocene lakeshores (Moratto 1984). A warm and dry 3,000-year period called the Altithermal began around 6,000 B.C. The conditions of the Altithermal are likely responsible for the change in human subsistence patterns at this time, including a greater emphasis on plant foods and small game.

3.2.2 Milling Stone Horizon (6,000 – 3,000 B.C.)

Wallace (1955:219) defined the Milling Stone Horizon as "marked by extensive use of milling stones and mullers, a general lack of well-made projectile points, and burials with rock cairns." The dominance of such artifact types indicates a subsistence strategy oriented around collecting plant foods and small animals. A broad spectrum of food resources was consumed including small and large terrestrial mammals, sea mammals, birds, shellfish and other littoral and estuarine species, near-shore fishes, yucca, agave, and seeds and other plant products (Kowta 1969; Reinman 1964). Variability in artifact collections over time and from the coast to inland sites indicates that Milling Stone Horizon subsistence strategies adapted to environmental conditions (Byrd and Raab 2007:220). Lithic artifacts associated with Milling Stone Horizon sites are dominated by locally available tool stone and in addition to ground stone tools, such as manos and metates, chopping, scraping, and cutting tools, are very common. Kowta (1969) attributes the presence of numerous scraper-plane tools in Milling Stone Horizon collections to the processing of agave or yucca for food or fiber. The mortar and pestle, associated with acorns or other foods processed through pounding, were first used during the Milling Stone Horizon and increased dramatically in later periods (Wallace 1955, 1978; Warren 1968).

Two types of artifacts that are considered diagnostic of the Milling Stone period are the cogged stone and discoidal, most of which have been found within sites dating between 4,000 and 1,000 B.C. (Moratto 1984:149), though possibly as far back as 5,500 B.C. (Couch et al. 2009). The cogged stone is a ground stone object that has gear-like teeth on the perimeter and is produced from a variety of materials. The function of cogged stones is unknown, but many scholars have postulated ritualistic or ceremonial uses (c.f., Dixon 1968:64-65; Eberhart 1961:367). Similar to cogged stones, discoidals are found in the archaeological record subsequent to the introduction of the cogged stone. Cogged stones and discoidals were often purposefully buried, or "cached." Cogged stones have been collected in Los Angeles County though their distribution appears to center on the Santa Ana River basin (Eberhart 1961).

3.2.3 Intermediate Horizon (3,000 B.C. – A.D. 500)

Wallace's Intermediate Horizon dates from approximately 3,000 B.C.-A.D. 500 and is characterized by a shift toward a hunting and maritime subsistence strategy, as well as greater use of plant foods. During the Intermediate Horizon, a noticeable trend occurred toward greater adaptation to local resources including a broad variety of fish, land mammal, and sea mammal remains along the coast. Tool kits for hunting, fishing, and processing food and materials reflect this increased diversity, with flake scrapers, drills, various projectile points, and shell fishhooks being manufactured.

Mortars and pestles became more common during this transitional period, gradually replacing manos and metates as the dominant milling equipment. Many archaeologists believe this change in milling stones signals a change from the processing and consuming of hard seed resources to the increasing reliance on acorn (e.g., Glassow et al. 1988; True 1993). Mortuary practices during the Intermediate typically included fully flexed burials oriented toward the north or west (Warren 1968:2-3).

3.2.4 Late Prehistoric Horizon (A.D. 500 – Historic Contact)

During Wallace's (1955, 1978) Late Prehistoric Horizon the diversity of plant food resources and land and sea mammal hunting increased even further than during the Intermediate Horizon. More classes of artifacts were observed during this period and high-quality exotic lithic materials were used for small finely worked projectile points associated with the bow and arrow. Steatite containers were made for cooking and storage and an increased use of asphalt for waterproofing is noted. More artistic artifacts were recovered from Late Prehistoric sites and cremation became a common mortuary custom. Larger, more permanent villages supported an increased population size and social structure (Wallace 1955:223).

Warren (1968) attributes this change in material culture, burial practices, and subsistence focus to the westward migration of desert people he called the Takic, or Numic, Tradition in Los Angeles, Orange, and western Riverside counties. This Takic Tradition was formerly referred to as the "Shoshonean wedge" (Warren 1968), but this nomenclature is no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups (Heizer 1978:5; Shipley 1978:88, 90).

3.3 HISTORIC SETTING

The post European contact history of California is generally divided into three time periods: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Each of these periods is briefly described below.

3.3.1 Spanish Period (1769-1822)

Spanish exploration of California began when Juan Rodriguez Cabrillo led the first European expedition into the region in 1542. For more than 200 years after his initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). In 1769, Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement in what was then known as Alta (upper) California at Mission San Diego de Alcalá. This was the first of 21 missions erected by the Spanish between 1769 and 1823. It was during this time that initial Spanish settlement of the project vicinity began. Mission San Gabriel was first founded in 1771. In 1775, the mission was moved approximately three miles to its present location to improve conditions for planting and cultivating crops. Mission San Gabriel became one of the most productive and affluent missions in Alta California, providing support for surrounding missions (California Missions Foundation, n.d.). At its peak the mission population reached 1,701 people in 1817 (Bodkin, 1910:10). It was the fourth mission to be established in California and is located approximately 15 miles northeast of the project site (California Missions Foundation, n.d.).

1.1.1 Mexican Period (1822-1848)

The Mexican Period commenced when news of the success of the Mexican War of Independence (1810-1821) against the Spanish crown reached California in 1822. This period saw the privatization of mission lands in California with the passage of the Secularization Act of 1833. This Act federalized mission lands and enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. Successive Mexican

governors made approximately 700 land grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Shumway, 2007:10). After secularization, the San Gabriel Mission and its grounds deteriorated and the Native American population eventually dispersed (Bodkin, 1910:10-11).

In 1810 Antonio María Lugo was granted the 29,513-acre Rancho San Antonio (Lugo) by Mexican governor Argüello (Shumway 2007) and was confirmed in 1823 and 1827. The rancho property included the present-day cities of Bell, South Gate, Maywood, Vernon, Huntington Park, Walnut Park, Cudahy, South Gate, Lynwood, and Commerce. In 1838, the rancho was regranted by Governor Alvarado. In 1855, Lugo partitioned the rancho amongst his sons and daughters and reserved a homestead for himself. A patent was issued to A. M. Lugo in 1866 for the 29,513-acre rancho.

The Mexican Period for the Los Angeles County region ended in early January 1847. Mexican forces fought and lost to combined U.S. Army and Navy forces in the Battle of the San Gabriel River on January 8 and in the Battle of La Mesa on January 9 (Nevin 1978). On January 10, leaders of the pueblo of Los Angeles surrendered peacefully after Mexican General Jose Maria Flores withdrew his forces. Shortly thereafter, newly appointed Mexican Military Commander of California Andrés Pico surrendered all of Alta California to U.S. Army Lieutenant Colonel John C. Fremont in the Treaty of Cahuenga (Nevin 1978).

1.1.2 American Period (1848-Present)

The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo on February 2, 1848, in which the United States agreed to pay Mexico $15 million for conquered territory including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. Settlement of the Los Angeles region increased dramatically in the early American Period.

The discovery of gold in northern California in 1848 led to the California Gold Rush, though earlier California gold was previously discovered in Placerita Canyon in 1842 (Guinn 1977; Workman 1935:26). By 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to immigrate to the state, particularly after the completion of the First Transcontinental Railroad in 1869. The U.S. Congress in 1854 agreed to let San Pedro become an official port of entry. By the 1880s, the railroads had established networks from the port and throughout the county of Los Angeles, resulting in fast and affordable shipment of goods, as well as a means to transport new residents to the booming region (Dumke 1944). New residents included many health-seekers drawn to the area by the fabled southern California climate in the 1870s–1880s.

3.3.2 City of South Gate

The following description of the history of South Gate has been summarized based on the City of South Gate's webpage on the "History of South Gate" (City of South Gate 2022):

Much of the City of South Gate is situated on former Rancho San Antonio lands. Rancho San Antonio was established by Antonio Lugo in 1771 but grew to prominence under his son Don Antonio Maria Lugo in the early 1800s. By the 1870s, most of the rancho had been subdivided into 40-acre tracts, and by the 1880s agriculture had replaced ranching. In the early twentieth century, nearly all of the land in South Gate had been converted from agriculture to housing and

factories. In 1917, realtor Charles B. Hooper devised the name "South Gate Gardens—Gateway to the Sea" as a marketing pitch for the primarily half-acre lots he sold. The name stuck.

The early zoning of the city of South Gate that had occurred in 1918 resulted in 125 houses constructed and a population estimated at 500. The community of South Gate Gardens covered the area east from Long Beach Boulevard to Otis, and south from Santa Ana to Independence, and continued to grow. The streets encompassing Post, State, and Virginia came to be known as the "business district," with two large lots set aside for a school and a church.

In 1923 the City of South Gate was officially incorporated. Famous residents of South Gate include Amelia Earhart, who learned to fly in 1921-22 at Kinner Field, a dirt field formerly located on Century Boulevard at Long Beach Boulevard. She became the first woman to fly solo across the Atlantic Ocean in 1932, vanishing only 5 years later during an attempt to fly globally.

The City Hall that had been erected at the intersection of Post and Victoria during 1923, the first year of South Gate's incorporation, was replaced with a new building on California Avenue in 1942. This building is still in use today. The first City Hall building was demolished in 1964, with the mosaic that had decorated the front of the building being removed and mounted on a plaque in front of the new City Hall.

In 1928, one of the most notable local industries to South Gate was the Firestone Tire and Rubber Company. The factory for this industry was built on a 40-acre former bean field. On June 15, 1928, Firestone's first tire rolled off the assembly line. The General Motors plant also began production in South Gate in 1936 with 1,000 employees, which soon increased to 4,000 employees. The cars produced in this plant included Pontiac, Oldsmobile and Buick.

Upon the end of World War II, the residents of South Gate awaited growth and prosperity on the horizon. A Chamber of Commerce was organized in 1945 by twenty local businesses in order to promote the economic welfare and happiness of the community through job creation and spurring commercial development.

In 1973, a new library was constructed on Tweedy Boulevard to replace the old library that had been erected on California Avenue between Firestone and Ardmore Boulevards in the early 1930s. A portion of the old library building was donated to the South Gate Art Association for a gallery. The building would go on to house a theater and the South Gate Museum. As part of the refurbishment of the old library in current times, the City of South Gate is working with the Getty Museum to restore interior murals that Works Project Act (WPA) artists during the early 1930s had painted to depict the history of writing.

4 BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

On November 17, 2022, PaleoWest staff conducted a cultural resource records search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC), California State University, Fullerton. The purpose of the records search was to identify all previous cultural resource work and previously recorded cultural resources within a 0.5-mi radius of the APE (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of available historical USGS topographic maps and General Land Office (GLO) plat maps.

4.1.1 Previous Studies

The SCCIC records search identified 11 cultural resources studies that were conducted within a 0.5-mi radius of the APE. None of these studies intersected the APE. A list of previous studies and their relation to the APE is included as Table 4-1.

Table 4-1. Previous Cultural Resource Studies within a 0.5-Mi Radius of the APE

Report Number	Author	Year	Title	Proximity to Project APE
LA-00155	Stickel, Gary E.	1988	A Cultural Resources Assessment of the Bikeway Greenway Project, City of South Gate	0.3 mi east/southeast
LA-02644	Wlodarski, Robert J.	1992	The Results of a Phase 1 Archaeological Study for the Proposed Alameda Transportation Corridor Project, Los Angeles County, California	0.3-mi west/southwest
LA-03980	McLean, Deborah K.	1998	Archaeological Assessment for Pacific Bell Mobile Services Telecommunications Facility La156-03, 3170 Firestone Boulevard, City of South Gate, County of Los Angeles, California	0.35 mi east/northeast
LA-04834	Ashkar, Shahira	1999	Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Fiber Optic Cable System Installation Project, Los Angeles to Anaheim, Los Angeles and Orange Counties	0.35 mi north
LA-07060	Padon, Beth	2002	Results From the Archaeological Records Search for South Gate Sewer Rehabilitation Project, Los Angeles County	0.4 mi east/southeast
LA-07664	Thal, Sean	2005	Historic Survey Report and View Shed Analysis Cultural Resource Assessment for the Truba (CA-6346b) Cellular Facility on 2906 Laurel Place, South Gate, Los Angeles County, Ca	0.15 mi north

Report Number	Author	Year	Title	Proximity to Project APE
LA-07978	Wlodarski, Robert J.	2006	Records Search and Field Reconnaissance for the Proposed Royal Street Communications Wireless Telecommunications Site La0325b (sbc Switch South Gate), Located at 9420 Long Beach Boulevard. South Gate, California 90280	0.3 mi southeast
LA-08255	Arrington, Cindy and Nancy Sikes	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II	0.3 mi north
LA-09643	Smith, Francesca G. and Kip Harper	2008	Cultural Resources Initial Technical Report and Phase 1 Site Investigation, Proposed South Region Elementary School No. 9 Project, South Gate, Los Angeles County, California.	0.07 mi northwest
LA-09644	Smith, Francesca and Caprice D. Harper	2008	Cultural Resources Intensive Survey Report Proposed South Region Elementary School No. 9 Project, South Gate, Los Angeles County, California.	0.07 mi northwest
LA-10724	Bonner, Wayne and Kathleen Crawford	2010	Cultural Resources Records Search, Site Visit Results, and Direct APE Historic Architectural Assessment for Clearwire Candidate CA-LOS6618/LA03XC384, 8600 Santa Fe Avenue, South Gate, Los Angeles County, California	0.4 mi northwest

4.1.2 Previously Recorded Resources

Five cultural resources are recorded within 0.5-mi of the APE. One resource is a segment of the Union Pacific Railroad, which is unevaluated for listing in the NRHP or CRHR (P-19-186110). Two other resources (P-19-188281 and P-19-188282) are historic-period buildings built in the 1930s and 1940s that have been found ineligible for listing in the NRHP or CRHR, as well as locally, through survey evaluation. Another resource is a historic-period steel water tank that has also been found ineligible for listing in the NRHP or CRHR, as well as locally, through survey evaluation (P-19-188838). The remaining resource is a historic period two-story commercial building, originally a restaurant, that has been found eligible for listing in the CRHR under Criterion 3 (P-13-0188398) (Table 4-2). No resources have been documented within or adjacent to the APE.

Table 4-2. Previously Recorded Cultural Resources within a 0.5-Mi Radius of the APE

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year	Relationship to Project APE
P-19-186110/P-30-176630	–	Union Pacific Railroad including Southern Pacific line, Pacific Electric line, the Los Angeles and San Pedro railroad line, and the Los Angeles and Salt Lake Railroad line.	Unevaluated	1999 (Jones & Stokes)	0.35-mi north
P-19-188281	–	A historic period single-story commercial building built in 1946	Code 6Z (Found ineligible for NR, CR or local designation through survey evaluation)	2008 (SWCA)	0.20 mi northwest

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year	Relationship to Project APE
P-19-188282	–	A historic period single-story multi-family residential bungalow court complex consisting of six separate units and two small garages at rear of property. Built in 1930.	Code 6Z (Found ineligible for NR, CR or local designation through survey evaluation)	2008 (SWCA)	0.18 mi northwest
P-19-188398		Two-story commercial building with large first floor additions on the main and east elevations. Constructed in 1941.	Code 3CS (Found eligible for the California Register under Criterion 3 for its notable theme architecture, which embodies the distinctive characteristics of the drive-in type, the late 1930s period, and typifies the Los Angeles suburban region).	2008 (SWCA)	0.08 mi north/northwest
P-19-188838		A historic-period 500,000 gallon welded steel water tank. Known as the South Gate Water Tank, it was constructed in 1946.	Code 6Z (Found ineligible for NR, CR or local designation through survey evaluation)	2010 (Michael Brandman Associates)	0.44 mi northwest

Source: SCIC, November 2022

4.2 HISTORIC AERIAL PHOTOGRAPHS AND MAPS

A review of historical aerial photographs available on Google Earth and HistoricAerials.com indicates that from at least 1952 until the present time, the APE has been heavily developed. The closest freshwater source to the APE is the Los Angeles River, approximately 8.6 mi southeast of the APE. The Project area lies 0.72-mile west/northwest of the divergence of the San Pedro Branch of the Southern Pacific Railroad running north-south from the main line of the Southern Pacific Railroad, which runs east-west. The railroads were present as early as 1896. In 1930, the area surrounding the Project including Long Beach Boulevard, Willow Place, and Glenwood Place was constructed. Between 1930 and 1937, numerous structures were built in the area around western South Gate. The earliest buildings near the Project area date to 1930, while an aerial from 1952 provides the earliest evidence of the building located at 9019 Long Beach Boulevard, which was officially erected in 1941 according to the assessor's office (Los Angeles County Assessor's Office 2022).

4.3 ADDITIONAL SOURCES

In addition to the records search, general contextual and site-specific research was conducted for the subject property and the surrounding area. Additional sources consulted include the National Register of Historic Places, the Office of Historic Preservation Directory of Properties in the Built Environment Resource Directory, Los Angeles County Assessor files, City of South Gate historical documents, historical newspapers databases, historic Sanborn Fire Insurance Maps, and the Los Angeles Public Library databases.

4.4 NATIVE AMERICAN OUTREACH

PaleoWest requested a review of the Native American Heritage Commission's (NAHC) Sacred Lands File (SLF) on November 15, 2022. In anticipation of the results from the SLF, PaleoWest sent letters to a list of contacts, based on prior projects in the immediate area, on November 16, 2022. Negative SLF results were received on December 8, 2022. PaleoWest made follow-up calls and emails to Native American contacts on November 30, 2022.

As of December 20, 2022, no responses have been received from contacts. A summary of the Native American outreach is provided in Appendix B.

5 FIELDWORK

5.1 SURVEY METHODS

PaleoWest Associate Archaeologist Gena Severen conducted a pedestrian survey of the APE on November 23, 2022. Severen surveyed the APE using transects spaced 5–10 m apart and generally oriented in a north-south direction. The entire 0.65-acre area of the APE was surveyed during the fieldwork effort.

Severen examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-altered rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic period debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances, such as burrows, were visually inspected. Photographs documenting the APE are maintained by PaleoWest in online cloud storage.

5.2 RESULTS

Results of the survey indicate the APEhas been subject to development and urbanization. The three parcels making up the APE consist of an existing commercial building at 9019 Long Beach Blvd (APN 6204-025-902), as well as two vacant parcels which are 90% paved at 9001 Long Beach Blvd and 9015 Long Beach Blvd. Visibility was excellent (95-100%) in unpaved portions of the northernmost parcel (Figure 5-1 through 5-9). No prehistoric or historic archaeological resources were identified in the APE during the survey. However, the extant commercial building was documented and evaluated as it was constructed in 1941.

5.2.1 Historic Period Built Environment Resource

Vallarta Tires

The property at 9019 Long Beach Boulevard, the Vallarta Tires shop, was originally constructed in 1941 and consists of a commercial automotive repair and tire shop located on a 0.29-acre parcel (APN 6204-025-902, formerly 6204-025-039). The building measures 651 square feet and appears to have functioned as a greasing, gasoline, and oil facility in 1950, numerous gas stations between 1950 and 1970, and then finally as an automotive repair shop from 1970 through present-day (City of South Gate Housing Authority 2020). The building is situated along the center of the northern boundary of the parcel, with the entrance located on the south side.

The building is south-oriented toward Glenwood Place and is fronted by a surface parking lot where various tires are being stored, along with vehicles being serviced. An additional storage area house parked vehicles along the western elevation of the building. The concrete block commercial building features a rectangular plan with a north-south orientation. The building is one story in height and a brick wall extends generally east-west from the north side of the building. Based on field observation of the property, the condition of the building appears to be largely consistent with its original structure.

The south elevation of the building features a flat roof, an overhanging eave framing the office entryway at the southwest corner of the building, and a sliding garage door opening to the interior of the garage workspace in the southeast corner of the building. Flood lights are positioned two at each corner of the top corners of the building. The exterior walls of the tire shop building are clad primarily with brick and painted over with pale yellow paint. Paint appears to have been repainted within the last decade or two. A review of historic aerials indicate the building has existed at this location since at least 1952 (Historic Aerials 2022).

According to the Environmental Site Assessment (ESA) conducted by Rincon Consultants, Inc. in 2016 for the APE, the property at 9019 Long Beach Boulevard housed an automotive greasing and "gas and oil" business. This property was designed and historically used to provide gasoline, and sometimes additional services, to automobiles.



Figure 5-1. Overview of tire shop property (9019 Long Beach Blvd), facing north.



Figure 5-2. Overview of tire shop property (9019 Long Beach Blvd), facing northwest.

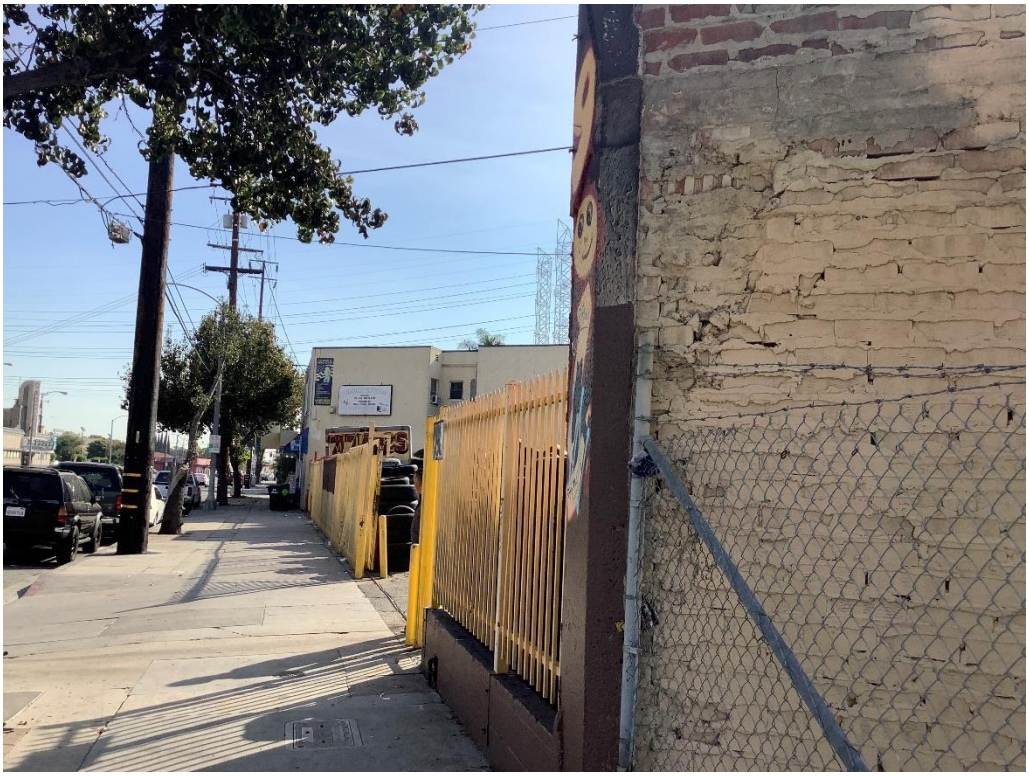


Figure 5-3. Overview of edge of tire shop property from sidewalk along Long Beach Blvd, facing southwest.



Figure 5-4. Overview of rear of tire shop at eastern edge of tire shop property, facing southwest.



Figure 5-5. Overview of rear of tire shop at eastern edge of tire shop property, facing southwest/west.



Figure 5-6. Overview of 9001 Long Beach Blvd property, facing northwest.



Figure 5-7. Overview of edge of 9001 Long Beach Blvd property at intersection of Long Beach Blvd with Willow Place, facing southwest.



Figure 5-8. Overview of edge of 9001 Long Beach Blvd property along sidewalk on Willow Place, facing west.



Figure 5-9. Northwest corner of 9001 Long Beach Blvd property, facing east.

6 EVALUATION OF SIGNIFICANCE

One historic period building – 9019 Long Beach Boulevard (Vallarta Tires) – is present within the APE. As discussed in Section 5.2.1, the building was constructed in 1941 during a period of growth for the city of South Gate. Though mostly lacking architectural features, the building can be ascribed to the Industrial architectural style, which discussed in Section 6.1 to provide context to this evaluation.

The City of Los Angeles established a relevant context for automotive properties that can also be applied to 9019 Long Beach Boulevard in the City of South Gate. The Car and Car Services sub-theme of the historic context related to Commercial Development and the Automobile describes how resources included in the sub-theme are those designed to provide services for the automobile; show accommodation to, and celebration of, the automobile in their design through the use of features such as canopies, show windows, and wide passageways, all linking the building to the car; and contain spatial arrangements in their site layouts allowing for maneuvering of the automobile, which differentiates them from pedestrian-oriented commercial structures. The main elements of the gas/service stations common throughout the Los Angeles area between 1920 and 1970 demonstrate buildings with a design and layout that accommodates the needs of the automobile and prioritize access to the street (SurveyLA 2016).

6.1 INDUSTRIAL STYLE

Industrial architecture can be traced from the first industrial revolution in England (ca. 1760-1830), though modern industrial architecture remains greatly influenced by the second industrial revolution of the late nineteenth and early twentieth centuries and its reliance on steel and concrete construction (MasterClass Staff 2022). Industrial building architecture prioritizes functionality and worker safety over aesthetically pleasing design.

The Industrial Style is characterized by the following features (MasterClass Staff 2022):

- Wide-open spaces, with open floor plans and high ceilings
- Minimalist aesthetic, prioritizing functionality over ornament
- Exposed materials and utilities, including concrete floors, exposed ductwork and utilities
- Natural light, through use of large metal-grid or floor-to-ceiling windows

6.2 NRHP AND CRHR ELIGIBILITY EVALUATION

The eligibility criteria for designating historic properties under federal and state criteria are essentially the same and are evaluated together for brevity.

Under NRHP Criterion A or CRHR Criterion 1, the property at 9019 Long Beach Boulevard is not significant because it does not have strong associations with important historic events. The commercial building was constructed in 1941 along Long Beach Boulevard, roughly eleven years after Long Beach Boulevard and the surrounding street grid was completed. While it was among the first commercial buildings constructed along this segment of Long Beach Boulevard in South Gate, it did not serve as a catalyst for rapid commercial development.

Research did not reveal that anyone associated with the development and use of this property, made demonstrably significant contributions to their field of occupation or history, therefore, this property is not eligible under **NRHP Criterion B or CRHR Criterion 2**.

The building on this property is not eligible under **NRHP Criterion C or CRHR Criterion 3** because it does not possess distinctive characteristics of a type, period, or method of construction, is not the work of a master, and does not represent high artistic value. The building is of simple utilitarian Industrial design, ubiquitous throughout the region during much of the twentieth century.

This property is not eligible under **NRHP Criterion D or CRHR Criterion 4** as a source (or likely source) of important information regarding history. The building on the property was also built using typical materials and does not have any likelihood of yielding important information about historic construction materials or technologies.

6.3 CITY OF SOUTH GATE LANDMARK ELIGIBILITY EVALUATION

This property is evaluated under the ten Landmark criteria in the Chapter 7.68, Preservation of Cultural Heritage, in the South Gate Municipal Code (City of South Gate Clerk's Office 2022).

1.1.3 City of South Gate Landmark Evaluation

Criterion A: This property does not possess a significant character, interest or value attributable to the development, heritage or cultural characteristics of the City of South Gate, the southern California region, the state of California or the United States of America or if it is associated with a person whose life is historically significant.

This property does not exemplify or reflect special elements of the City of South Gate's social, aesthetic, engineering, architectural, or natural history. The property was initially developed in 1941 as gasoline/service station, one of many in the region. The business operated as a greasing, gasoline, and oil facility in 1950, numerous gas stations between 1950 and 1970, and then finally as an automotive repair shop from 1970 through present-day (City of South Gate Housing Authority 2020). While the businesses in the commercial building served as a business dedicated to commercial development and the automobile, there is no indication that they exemplify or reflect special elements of the City of South Gate's history as it relates to the commercial development of the automobile. The commercial building was constructed in the utilitarian Industrial style and does not exemplify or reflect special elements of City of South Gate's, aesthetic, engineering, or architectural history. The built environment on this property does not contribute to the natural history of the City of South Gate.

Criterion B: This property is not the site of an historic event with a significant place in history.

This property is not associated with events that have made a significant contribution to the broad patterns of the City of South Gate or its regional history, or the cultural heritage of California or the United States. While the building was one of many that reflected the growing importance of the automobile in the development of the City of South Gate during the twentieth century, it does not serve as a unique or even strong reflection of that phenomenon.

Criterion C: This property does not exemplify the cultural, political, economic, social or historical heritage of the community.

Research did not reveal information that related to the original owner or subsequent owners, or anyone else associated with the development and use of this property and thus this property does not appear to have played a significant role in the history of the City of South Gate, California, or national history.

Criterion D: This property does not portray the environment in an era of history characterized by a distinctive architectural style.

This property has not yielded, or does not have the potential to yield, information important to the prehistory or history of the City of South Gate, California, or the nation. The building on the property was built using typical materials and does not have any likelihood of yielding important information about historic construction materials or technologies.

Criterion E: This property does not embody those distinguishing characteristics of an architectural type or engineering specimen.

This property does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master or possesses high artistic values. The building is an unremarkable example of simple, utilitarian Industrial style. The building style is common throughout South Gate, California, and the nation. The building is not the work of a master designer and lacks high artistic values.

Criterion F: This property is not the work of a person or persons whose work has significantly influenced the development of the city or the southern California region.

Extensive research into the history of 9019 Long Beach Boulevard did not yield any information as to the previous owners of the property. Similarly, the previous Environmental Sensitivity Assessment done by Rincon Consultants on this property in 2016 likewise did not find any relevant information regarding original or subsequent ownership of the property (Rincon Consultants, Inc. 2016).

Criterion G: This property does not contain elements of design, detail, materials, or craftsmanship which represent a significant innovation.

Criterion H: This property is not a part of or related to a distinctive area that is developed according to a specific historical, cultural or architectural motif.

Criterion I: This property does not represent an established and similar visual feature of a neighborhood or community due to its unique location or specific distinguishing characteristics.

Criterion J: This property is not or has not been a valuable information source important to the prehistory or history of the City of South Gate, the southern California region, the state of California or the United States of America.

This property does not retain sufficient integrity. The potential period of importance for this property is based on the construction date of the building: 1941. The following elements of integrity have been assessed to make a determination regarding the building's integrity:

- Location: The subject property retains integrity of location. The property is sited on the original location it was constructed in its original orientation.
- Design: The subject property retains weak integrity of design because there is no obvious design to the building, and the building is a poor example of the Industrial Style.

- **Setting:** The subject property lacks integrity of setting. The neighborhood has undergone significant changes since the subject property was constructed and is an area of major current redevelopment.
- **Materials:** The subject property retains some integrity of materials; however, expedient additions and modifications with cheap materials inconsistent with original design have diminished that integrity.
- **Workmanship:** The subject property retains little integrity of workmanship.
- **Feeling:** The subject property lacks integrity of feeling. This narrow and simple building provides little that evokes a sense of World War II feeling in South Gate.
- **Association:** The subject property lacks integrity of association. The property has no important associations with events, people, or important patterns of development in the City.

This property has been evaluated under the City of South Gate Landmark criteria and found ineligible for listing. The property does not have historical, architectural, community or aesthetic merit (i.e., does not meet eligibility Criteria A through J), does not display a National Register status code of 5 or above, and therefore is not eligible as a City of South Gate landmark.

7 SUMMARY AND RECOMMENDATIONS

7.1 SUMMARY OF RESULTS

This cultural resource assessment included a cultural resources records search, Native American outreach, and an intensive pedestrian survey of the APE. No archaeological resources were identified in the APE during these efforts. One built environment resource was identified in the APE, an extant commercial building located at 9019 Long Beach Boulevard. This resource was evaluated for this study and is recommended not eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, nor is it eligible as a City of South Gate Landmark.

Due to the paucity of available freshwater sources in the vicinity and the absence of known prehistoric archaeological sites in the immediate area, the sensitivity of the APE for containing intact buried prehistoric archaeological resources is considered low. Furthermore, an examination of historic topographic maps and aerial images indicates that the APE has largely been developed throughout the twentieth century, with many buildings being demolished and new buildings erected in their place. Though the extant building at 9019 Long Beach Boulevard appears to be unmodified, the other two parcels at 9001 Long Beach Boulevard and 9015 Long Beach Boulevard have undergone construction and demolition since the historic period. Due to the intensive development of the APE during the historic period, the potential to encounter buried historic period archaeological resources during Project construction is relatively low.

Based on these results, PaleoWest recommends a finding of no historic properties affected under Section 106 and no impacts to historical resources under CEQA. However, PaleoWest recommends the following best management practices be implemented during Project construction.

- If cultural resources are encountered during Project related activities, work in the immediate area must halt and the Project Archaeologist should be contacted immediately to evaluate the find. If the discovery proves to be significant for listing on the California Register of Historical Resources and/or the National Register of Historic Places, additional work such as data recovery excavations may be warranted to mitigate any impacts per CEQA or adverse effects under Section 106.
- If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code § 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified within 24 hours of positive identification as human. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

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South Gate, City of
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Workman, Boyle
1935 *The City that Grew*. Southland Publication Co., Los Angeles.

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Appendix A.
Record Search Summary

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PrimaryString	TrinomialString	ResourceName	Status	OtherIDs	Xrefs
P-19-186110		Union Pacific RR, Hobart Tower		Resource Name - Union Pacific RR, Hobart Tower; Other - Union Pacific RR; Other - C-Los Angeles-A-1; Other - #33, 34, & 100; Other - Hobart Tower	Extends into another county as 30-176630
P-19-188281		Marsal's Café		Resource Name - Marsal's Café; Other - South Gate Moose Lodge 857	
P-19-188282		K Hohman Bungalow Court		Resource Name - K Hohman Bungalow Court	
P-19-188398		McDonnell's Plantation		Resource Name - McDonnell's Plantation; Other - Property 17; Other - Elizabeth Bakery; Other - Cojutepeque Restaurant	
P-19-188838		S Gate Water Tank		OHP Property Number - 180209; Resource Name - S Gate Water Tank; Other - Clearwire CA-LOS66218 (LA03XC384)	

ResType	Age	InfoBase	Attribs	ResourceDisclosure	ResourceCollections	AccessionNo	CollectionsFacility
Structure	Historic	Survey	HP11; HP17; HP39	Unrestricted	No		
Building	Historic	Other	HP06; HP13	Not for publication	No		
Building	Historic	Other	HP03	Not for publication	No		
Building	Historic		HP06	Not for publication	No		
Structure	Historic	Survey	HP11	Unrestricted			

ResourceNotes	RecordingEvents	Reports	CountyName
	1999 (S. Ashkar, Jones & Stokes); 2002 (D. Livingstone and C. Hamilton, Applied Earthworks); 2007 (Francesca G. Smith and Caprice D. Harper, Parsons); 2018 (Jessica B. Feldman, ICF); 2019 (Jenna Kachour, GPA)	LA-04834, LA-07532, LA-07658, LA-07662, LA-07664, LA-07934, LA-07943, LA-08315, LA-08733, LA-08857, LA-08858, LA-08862, LA-08892, LA-09115, LA-09190, LA-09634, LA-09635, LA-09636, LA-09638, LA-09649, LA-09900, LA-10199, LA-10284, LA-10285, LA-10320, LA-10324, LA-10430, LA-10452, LA-10506, LA-10541, LA-10633, LA-10700, LA-10723, LA-10724, LA-10836, LA-10891, LA-10942, LA-11048, LA-11208, LA-11211, LA-11338, LA-11346, LA-11405, LA-11429, LA-11506, LA-11600, LA-11719, LA-11965, LA-12019, LA-12211, LA-12302, LA-12349, LA-12434, LA-12445, LA-12446, LA-12452, OR-02094, OR-03861	Los Angeles
	2008 (Smith, Francesca and Samantha Murray, SWCA Environmental Consultants)	LA-09643, LA-09644, LA-10724	Los Angeles
	2008 (Smith, Francesca and Samantha Murray, SWCA Environmental Consultants)	LA-09643, LA-09644, LA-10724	Los Angeles
	2008 (Smith Francesca, Caprice "Kip" Harper, and Samantha Murray, SWCA Environmental Consultants)	LA-09644, LA-12446	Los Angeles
	2010 (K.A Crawford, Michael Brandman Associates)	LA-10724	Los Angeles

Maps	Address	PLSS	UTM
ANAHEIM, LOS ALAMITOS, LOS ANGELES, SOUTH GATE, WHITTIER			
SOUTH GATE	2782 Firestone Blvd South Gate (APN 6204-022-004)		
SOUTH GATE	2773-2777 Willow Place South Gate (APN 6204-022-008); (APN 6204-022-008)		
SOUTH GATE	2828 Firestone Blvd South Gate (APN 6204-022-025); 2800 Firestone Blvd South Gate (APN 6204-022-025)		
SOUTH GATE	8600 Santa Fe Ave South Gate (APN 6204-18-900)		

Appendix B.
Native American Outreach

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Native American Contact/Response Matrix				
Recommended Contacts (Name and Tribal Affiliation)	Contact Info	Initial Contact	Follow up Attempts	Comments/Notes
Geneva Mojado, Chairwoman Soboba Band of Luiseno Indians, California PO Box 487 San Jacinto, CA 92581-0487	Phone: (951) 654-2765 Fax: (951) 654-4198 gmojado@soboba-nsn.gov	Sent email on 11/16/22	Left voicemail on 11/30/22	
Joseph Ontiveros, THPO Soboba Band of Luiseno Indians, California PO Box 487 San Jacinto, CA 92581-0487	Phone: (951) 654-2765x4137 Fax: (951) 654-4198 jontiveros@soboba-nsn.gov	Sent email on 11/16/22	Left voicemail on 11/30/22	
Thomas Tortez Jr., Chairperson Torres Martinez Desert Cahuilla Indians, California PO Box 1160 Thermal, CA 92274-1160	Phone: (760) 397-0300 Fax: (760) 397-8146 thomas.tortez@torresmartinez-nsn.gov	Sent email on 11/16/22	Spoke with assistant in tribal office on 11/30/22	Requested on 11/30/22 that original email be forwarded to nmoreno@tmtanf.org who will ensure that cultural resources team see this letter. Forwarded same day.
Andrew Salas, Chairperson Gabrieleno Band of Mission Indians - Kizh Nation PO Box 393 Covina, CA 91723	Phone: (626) 926-4131 admin@gabrielenoindians.org	Sent email on 11/16/22	Called on 11/30/222	Mailbox is full and cannot accept messages on 11/30/22.
Anthony Morales, Chairperson Gabrieleno/Tongva San Gabriel Band of Mission Indians PO Box 693 San Gabriel, CA 91778	Phone: (626) 483-3564 Fax: (626) 286-1262 gttribalcouncil@gmail.com	Sent email on 11/16/22	Left voicemail on 11/30/22	
Sandonne Goad, Chairperson Gabrielino/Tongva Nation 106 1/2 Judge John Aiso St., #231 Los Angeles, CA 90012	Phone: (951) 807-0479 sgoad@gabrielino-tongva.com	Sent email on 11/16/22	Left voicemail on 11/30/22	
Robert Dorame, Chairperson Gabrielino Tongva Indians of California Tribal Council PO Box 490 Bellflower, CA 90707	Phone: (562) 761-6417 Fax: (562) 761-6417 gtongva@gmail.com	Sent email on 11/16/22	Call was answered and hung up on 11/30/22	
Charles Alvarez Gabrielino-Tongva Tribe 23454 Vanowen Street West Hills, CA 91307	Phone: (310) 403-6048 roadkingcharles@aol.com	Sent email on 11/16/22	Left voicemail on 11/30/22	

Native American Contact/Response Matrix				
Recommended Contacts (Name and Tribal Affiliation)	Contact Info	Initial Contact	Follow up Attempts	Comments/Notes

PALEOWEST

T: 626.408.8006
F: 602.254.6280
info@paleowest.com

MONROVIA, CALIFORNIA
517 S. Ivy Avenue,
Monrovia, CA 91016

November 15, 2022

Charles Alvarez
Gabrielino-Tongva Tribe
23454 Vanowen Street
West Hills, CA 91307

RE: 9001-9019 Long Beach Blvd Housing Project, City of South Gate, Los Angeles County, California

Dear Chairperson Alvarez,

PaleoWest is conducting a cultural resource investigation for the proposed 9001-9019 Long Beach Blvd Housing Project (Project) in the City of South Gate, Los Angeles County, California, and would like to invite you to share relevant information about the Project vicinity. The Project proposes the development of three separate parcels that total approximately 0.66 acres, located at 9001-9019 Long Beach Boulevard in South Gate, California, and roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing tire shop building constructed in 1941 would be demolished as part of the Project. The Project is located on the South Gate, CA (1982) topographic quadrangle and is within unsectioned lands of the San Antonio (Lugo) Land Grant (Attachment A). The project is subject to the California Environmental Quality Act (CEQA) compliance and the City of South Gate is lead agency. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

PaleoWest is conducting a cultural resources study related to this Project. A search of the Sacred Lands File was requested from the Native American Heritage Commission for the Project on November 14, 2022. PaleoWest has not yet received a response from the NAHC but anticipates that NAHC will suggest we contact you for comment.

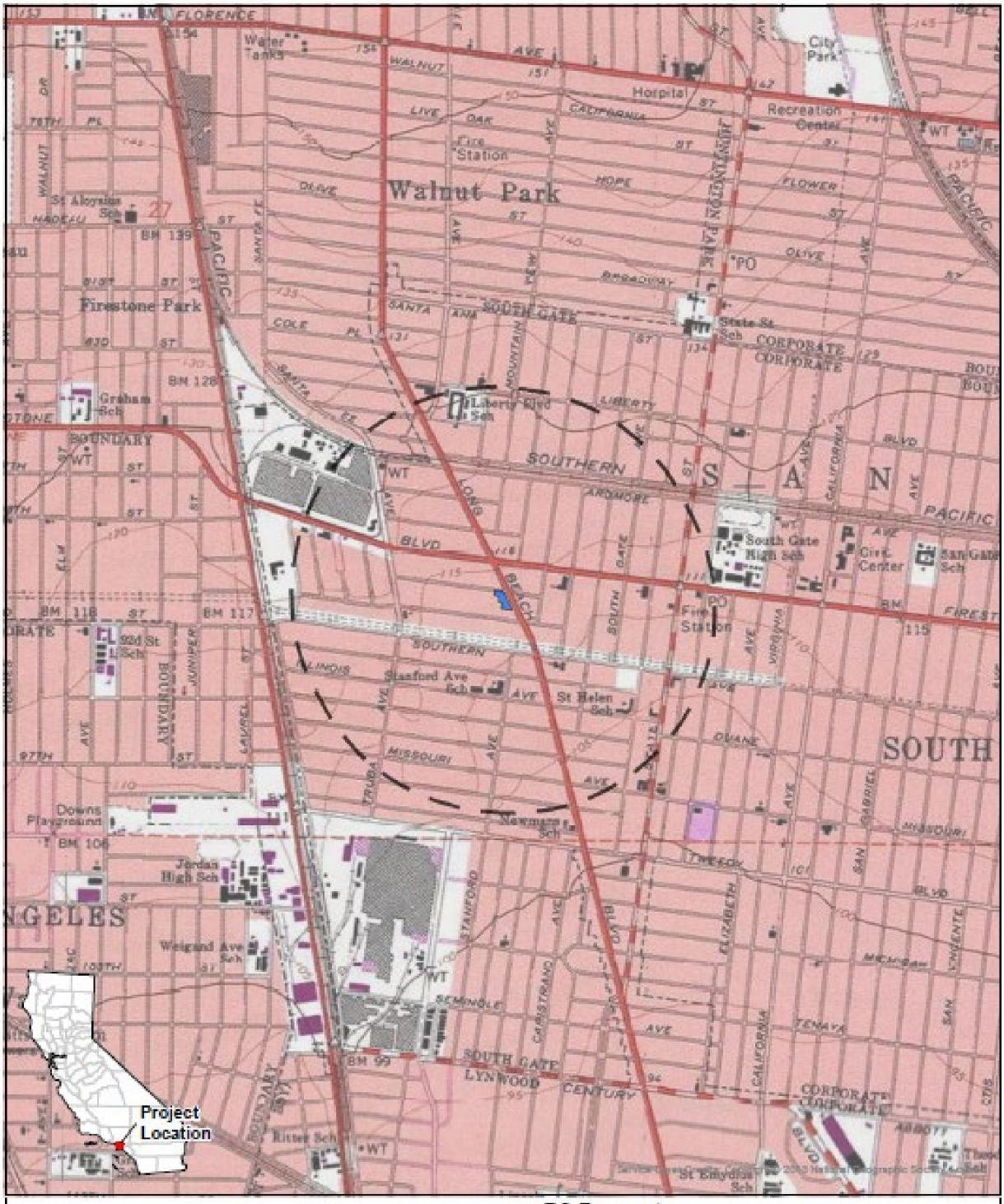
If you have knowledge of cultural resources that may exist within or near the project area, please contact me by email at pkohler@paleowest.com or by telephone at (805) 588-4186. We appreciate any information you can provide.

Sincerely,

Paige Kohler

Paige Kohler
Associate Archaeologist
PaleoWest LLC
pkohler@paleowest.com
(805) 588-4186

Attachment A—9001-9019 Long Beach Blvd Housing Project Location Map



PALEO WEST

0 feet 2,000

0 meters 500

1:24,000

RS Request
USGS 7.5' Quadrangle:
Southgate, Ca (1982)
San Antonio (Lugo)
Land Grant
UTM Zone | NAD 83 | SBBM

Project Area

0.5 mi RS buffer

PALEOWEST

T: 626.408.8006
F: 602.254.6280
info@paleowest.com

MONROVIA, CALIFORNIA
517 S. Ivy Avenue,
Monrovia, CA 91016

November 16, 2022

Robert Dorame, Chairperson
Gabrielino Tongva Indians of California Tribal Council
PO Box 490
Bellflower, CA 90707

RE: 9001-9019 Long Beach Blvd Housing Project, City of South Gate, Los Angeles County, California

Dear Chairperson Dorame,

PaleoWest is conducting a cultural resource investigation for the proposed 9001-9019 Long Beach Blvd Housing Project (Project) in the City of South Gate, Los Angeles County, California, and would like to invite you to share relevant information about the Project vicinity. The Project proposes the development of three separate parcels that total approximately 0.66 acres, located at 9001-9019 Long Beach Boulevard in South Gate, California, and roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing tire shop building constructed in 1941 would be demolished as part of the Project. The Project is located on the South Gate, CA (1982) topographic quadrangle and is within unsectioned lands of the San Antonio (Lugo) Land Grant (Attachment A). The project is subject to the California Environmental Quality Act (CEQA) compliance and the City of South Gate is lead agency. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

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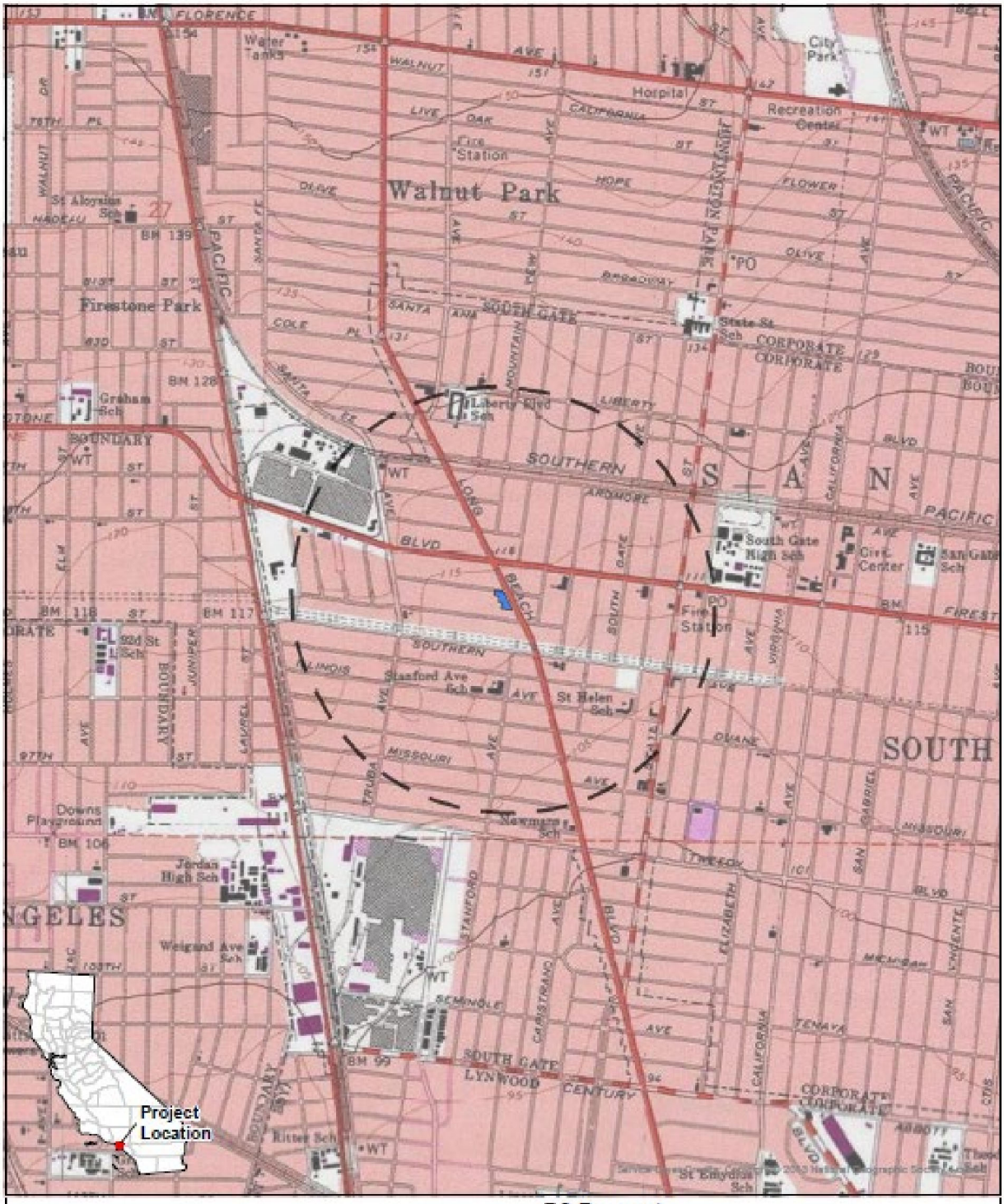
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Paige Kohler

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pkohler@paleowest.com
(805) 588-4186

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MONROVIA, CALIFORNIA
517 S. Ivy Avenue,
Monrovia, CA 91016

November 15, 2022

Sandonne Goad, Chairperson
Gabrielino/Tongva Nation
106 1/2 Judge John Aiso St., #231
Los Angeles, CA 90012

RE: 9001-9019 Long Beach Blvd Housing Project, City of South Gate, Los Angeles County, California

Dear Chairperson Goad,

PaleoWest is conducting a cultural resource investigation for the proposed 9001-9019 Long Beach Blvd Housing Project (Project) in the City of South Gate, Los Angeles County, California, and would like to invite you to share relevant information about the Project vicinity. The Project proposes the development of three separate parcels that total approximately 0.66 acres, located at 9001-9019 Long Beach Boulevard in South Gate, California, and roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing tire shop building constructed in 1941 would be demolished as part of the Project. The Project is located on the South Gate, CA (1982) topographic quadrangle and is within unsectioned lands of the San Antonio (Lugo) Land Grant (Attachment A). The project is subject to the California Environmental Quality Act (CEQA) compliance and the City of South Gate is lead agency. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

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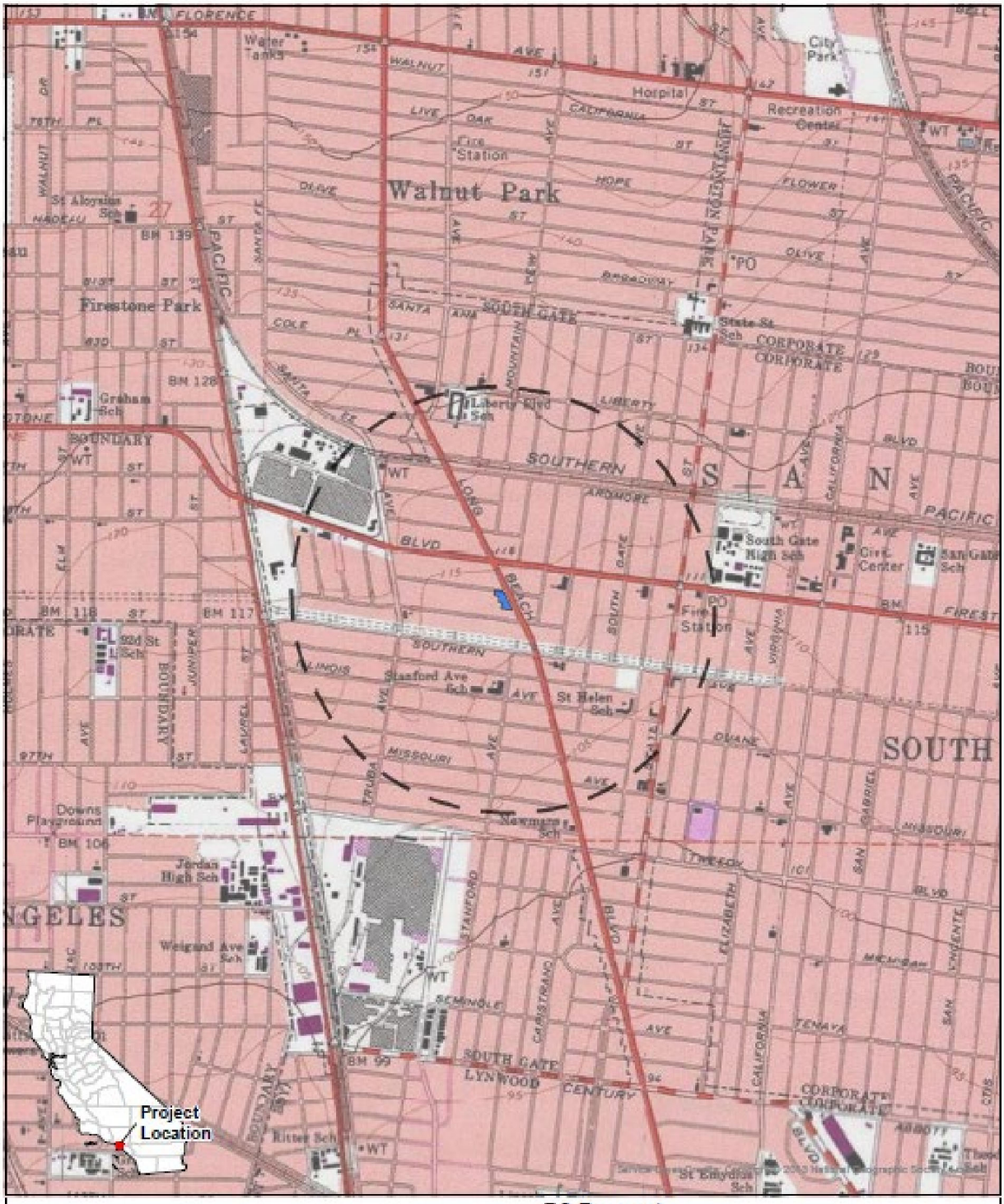
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MONROVIA, CALIFORNIA
517 S. Ivy Avenue,
Monrovia, CA 91016

November 15, 2022

Geneva Mojado
Chairperson
Soboba Band of Luiseno Indians,
California
PO Box 487
San Jacinto, CA 92581-0487

RE: 9001-9019 Long Beach Blvd Housing Project, City of South Gate, Los Angeles County, California

Dear Chairperson Mojado,

PaleoWest is conducting a cultural resource investigation for the proposed 9001-9019 Long Beach Blvd Housing Project (Project) in the City of South Gate, Los Angeles County, California, and would like to invite you to share relevant information about the Project vicinity. The Project proposes the development of three separate parcels that total approximately 0.66 acres, located at 9001-9019 Long Beach Boulevard in South Gate, California, and roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing tire shop building constructed in 1941 would be demolished as part of the Project. The Project is located on the South Gate, CA (1982) topographic quadrangle and is within unsectioned lands of the San Antonio (Lugo) Land Grant (Attachment A). The project is subject to the California Environmental Quality Act (CEQA) compliance and the City of South Gate is lead agency. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

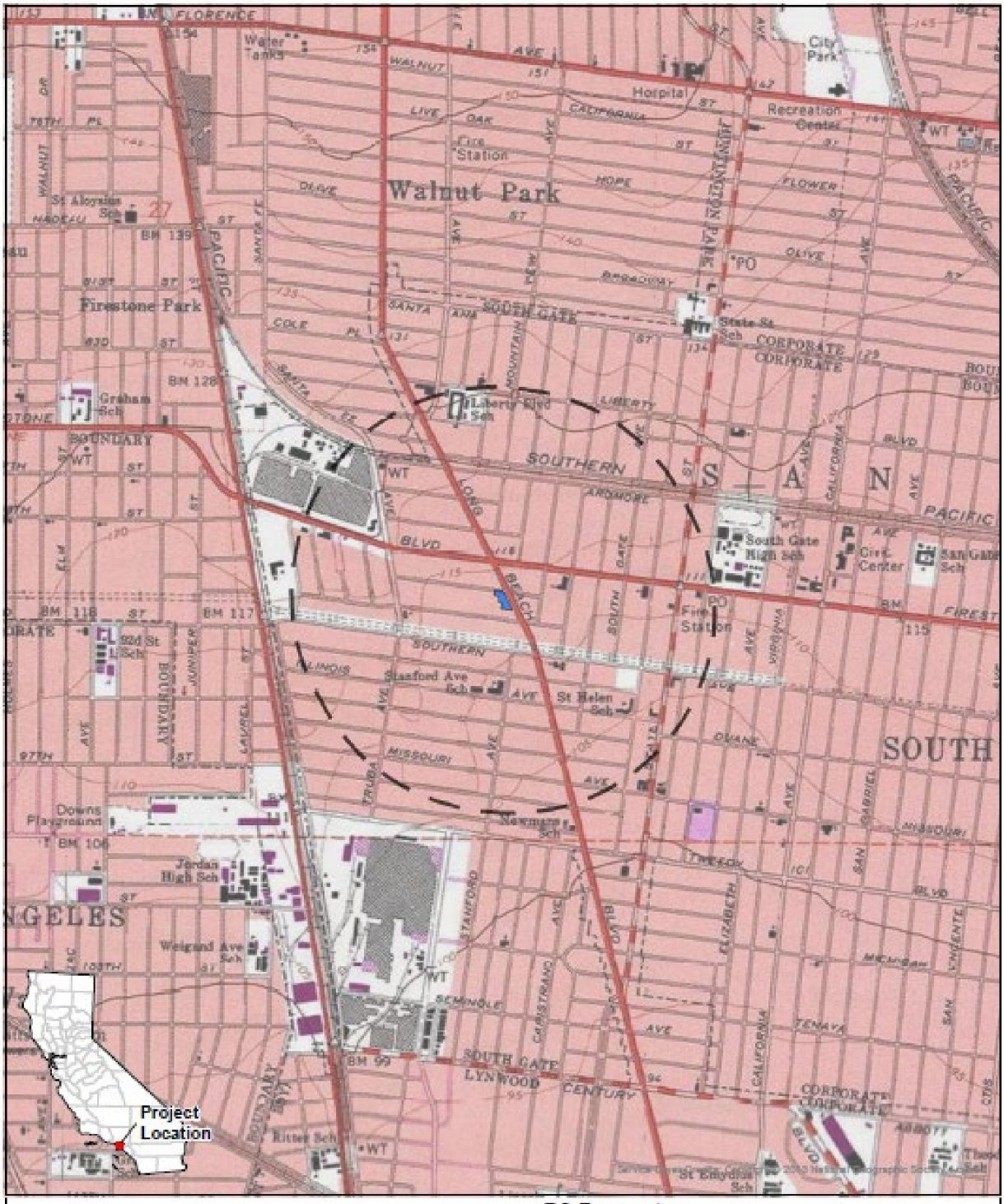
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Land Grant
UTM Zone | NAD 83 | SBBM

Project Area

0.5 mi RS buffer

PALEOWEST

T: 626.408.8006
F: 602.254.6280
info@paleowest.com

MONROVIA, CALIFORNIA
517 S. Ivy Avenue,
Monrovia, CA 91016

November 15, 2022

Anthony Morales, Chairperson
Gabrieleno/Tongva San Gabriel Band of Mission Indians
PO Box 693
San Gabriel, CA 91778

RE: 9001-9019 Long Beach Blvd Housing Project, City of South Gate, Los Angeles County, California

Dear Chairperson Morales,

PaleoWest is conducting a cultural resource investigation for the proposed 9001-9019 Long Beach Blvd Housing Project (Project) in the City of South Gate, Los Angeles County, California, and would like to invite you to share relevant information about the Project vicinity. The Project proposes the development of three separate parcels that total approximately 0.66 acres, located at 9001-9019 Long Beach Boulevard in South Gate, California, and roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing tire shop building constructed in 1941 would be demolished as part of the Project. The Project is located on the South Gate, CA (1982) topographic quadrangle and is within unsectioned lands of the San Antonio (Lugo) Land Grant (Attachment A). The project is subject to the California Environmental Quality Act (CEQA) compliance and the City of South Gate is lead agency. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

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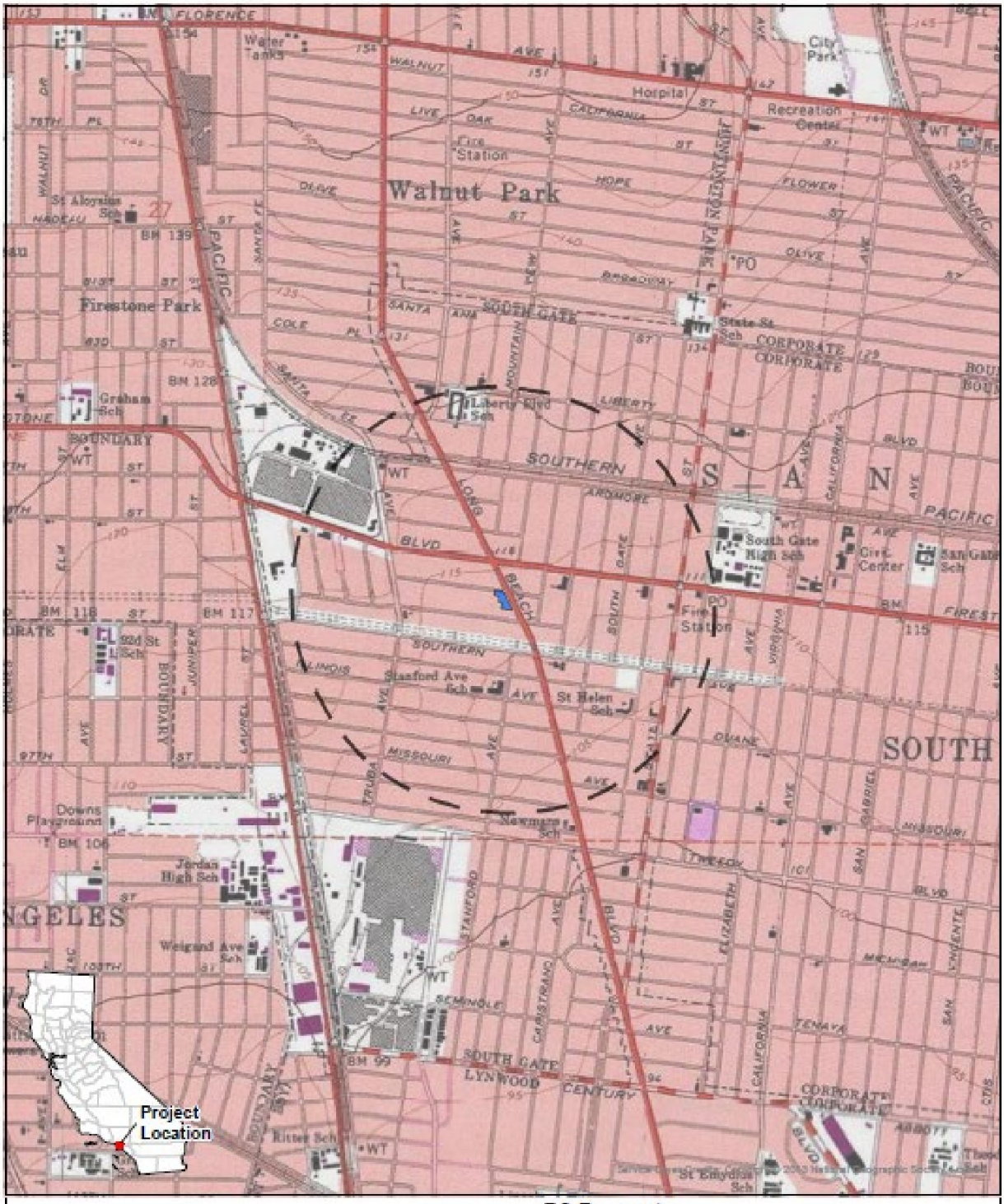
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MONROVIA, CALIFORNIA
517 S. Ivy Avenue,
Monrovia, CA 91016

November 15, 2022

Joseph Ontiveros, THPO
Soboba Band of Luiseno Indians,
California
PO Box 487
San Jacinto, CA 92581-0487

RE: 9001-9019 Long Beach Blvd Housing Project, City of South Gate, Los Angeles County, California

Dear Mr. Ontiveros,

PaleoWest is conducting a cultural resource investigation for the proposed 9001-9019 Long Beach Blvd Housing Project (Project) in the City of South Gate, Los Angeles County, California, and would like to invite you to share relevant information about the Project vicinity. The Project proposes the development of three separate parcels that total approximately 0.66 acres, located at 9001-9019 Long Beach Boulevard in South Gate, California, and roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing tire shop building constructed in 1941 would be demolished as part of the Project. The Project is located on the South Gate, CA (1982) topographic quadrangle and is within unsectioned lands of the San Antonio (Lugo) Land Grant (Attachment A). The project is subject to the California Environmental Quality Act (CEQA) compliance and the City of South Gate is lead agency. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

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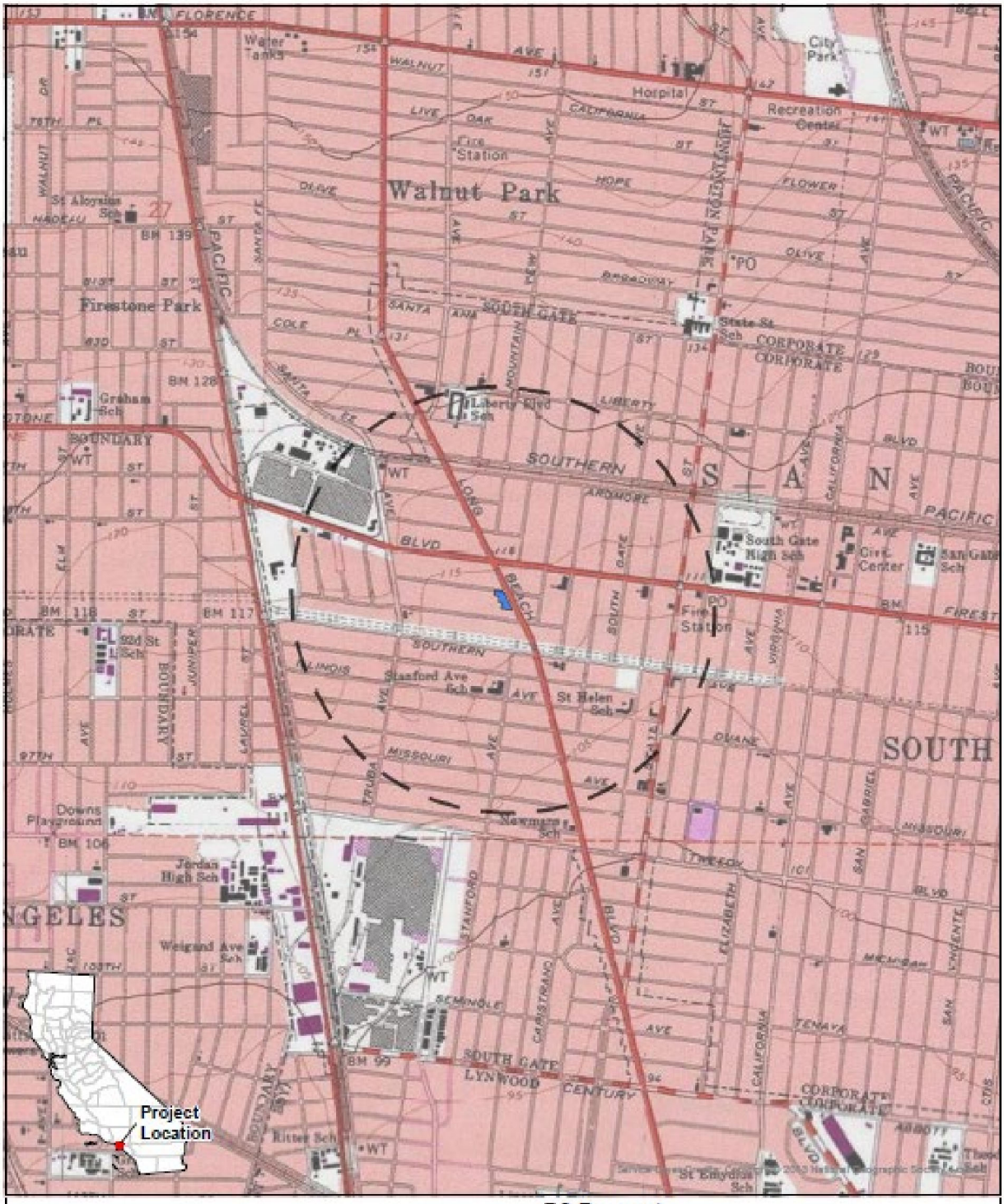
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Attachment A—9001-9019 Long Beach Blvd Housing Project Location Map



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Project Area

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T: 626.408.8006
F: 602.254.6280
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MONROVIA, CALIFORNIA
517 S. Ivy Avenue,
Monrovia, CA 91016

November 16, 2022

Andrew Salas, Chairperson
Gabrieleno Band of Mission Indians - Kizh Nation
PO Box 393
Covina, CA 91723
RE: 9001-9019 Long Beach Blvd Housing Project, City of South Gate, Los Angeles County, California

Dear Chairperson Salas,

PaleoWest is conducting a cultural resource investigation for the proposed 9001-9019 Long Beach Blvd Housing Project (Project) in the City of South Gate, Los Angeles County, California, and would like to invite you to share relevant information about the Project vicinity. The Project proposes the development of three separate parcels that total approximately 0.66 acres, located at 9001-9019 Long Beach Boulevard in South Gate, California, and roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing tire shop building constructed in 1941 would be demolished as part of the Project. The Project is located on the South Gate, CA (1982) topographic quadrangle and is within unsectioned lands of the San Antonio (Lugo) Land Grant (Attachment A). The project is subject to the California Environmental Quality Act (CEQA) compliance and the City of South Gate is lead agency. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

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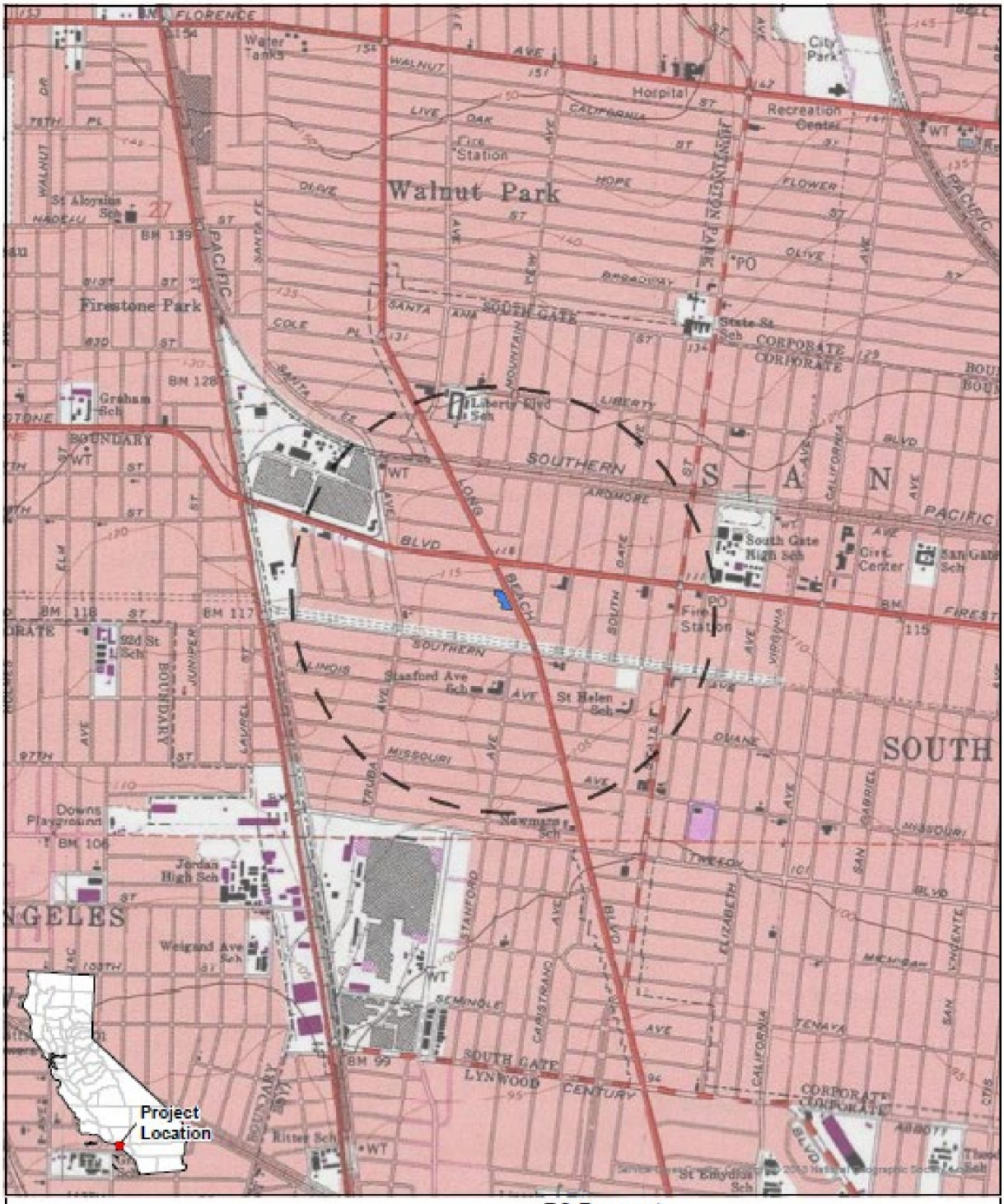
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Sincerely,

Paige Kohler

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Project Area

0.5 mi RS buffer

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MONROVIA, CALIFORNIA
517 S. Ivy Avenue,
Monrovia, CA 91016

November 15, 2022

Thomas Tortez Jr., Chairperson
Torres Martinez Desert Cahuilla Indians,
California
PO Box 1160
Thermal, CA 92274-1160

RE: 9001-9019 Long Beach Blvd Housing Project, City of South Gate, Los Angeles County, California

Dear Chairperson Tortez,

PaleoWest is conducting a cultural resource investigation for the proposed 9001-9019 Long Beach Blvd Housing Project (Project) in the City of South Gate, Los Angeles County, California, and would like to invite you to share relevant information about the Project vicinity. The Project proposes the development of three separate parcels that total approximately 0.66 acres, located at 9001-9019 Long Beach Boulevard in South Gate, California, and roughly bounded by Willow Place on the north, Long Beach Boulevard on the east, residential buildings to the west, and commercial and residential buildings to the south. An existing tire shop building constructed in 1941 would be demolished as part of the Project. The Project is located on the South Gate, CA (1982) topographic quadrangle and is within unsectioned lands of the San Antonio (Lugo) Land Grant (Attachment A). The project is subject to the California Environmental Quality Act (CEQA) compliance and the City of South Gate is lead agency. The Project seeks federal funding assistance and is also subject to the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

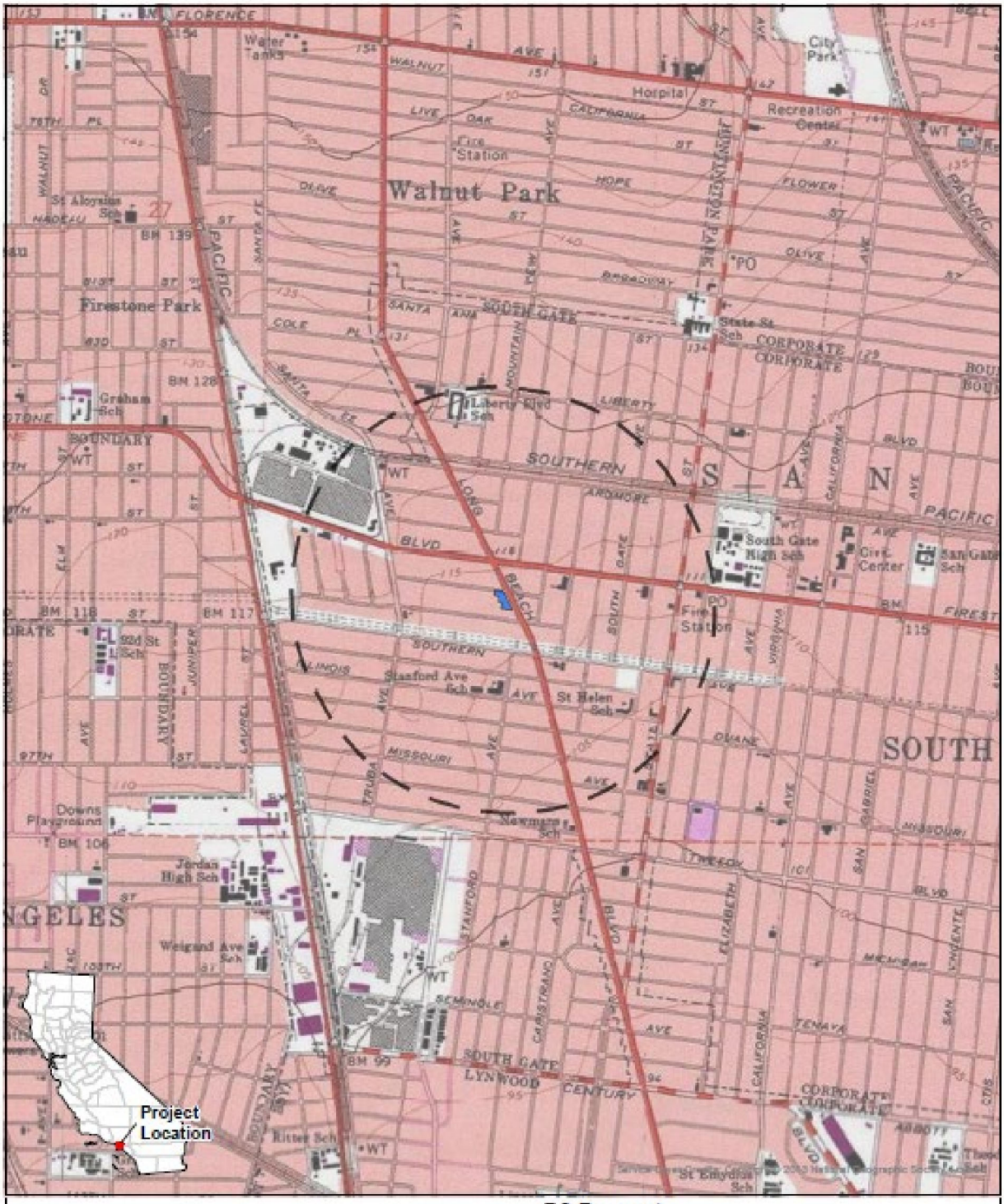
PaleoWest is conducting a cultural resources study related to this Project. A search of the Sacred Lands File was requested from the Native American Heritage Commission for the Project on November 14, 2022. PaleoWest has not yet received a response from the NAHC but anticipates that NAHC will suggest we contact you for comment.

If you have knowledge of cultural resources that may exist within or near the project area, please contact me by email at pkohler@paleowest.com or by telephone at (805) 588-4186. We appreciate any information you can provide.

Sincerely,

Paige Kohler
Associate Archaeologist
PaleoWest LLC
pkohler@paleowest.com
(805) 588-4186

Attachment A—9001-9019 Long Beach Blvd Housing Project Location Map



PALEO WEST

0 feet 2,000

0 meters 500

1:24,000

RS Request
USGS 7.5' Quadrangle:
Southgate, Ca (1982)
San Antonio (Lugo)
Land Grant
UTM Zone | NAD 83 | SBBM

Project Area

0.5 mi RS buffer

Appendix C.
Department of Parks and Recreation
523 Forms

State of California ◆ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

Page 1 **of** 3 ***Resource Name or #:** 9019 Long Beach Blvd
P1. Other Identifier: Vallarta Tires

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**
***a. County** Los Angeles County **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** South Gate **Date** 1964 (PR 1981) **T** 2S ; **R** 13W ; unsectioned; SB **B.M.**
c. Address 9019 Long Beach Boulevard City South Gate Zip 90280
d. UTM: (Give more than one for large and/or linear resources) Zone 11 mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Los Angeles County Assessor's Parcel Number 6204-025-902

***P3a. Description:**

The subject property is an unremarkable single-story commercial tire shop consisting of a 651-square-foot concrete block building that functioned as a greasing, gasoline, and oil facility in 1950, numerous gas stations between 1950 and 1970, and as an automotive repair shop from 1970 through present-day. The rectangular plan building is situated along the center of the northern boundary of the parcel, with the entrance to the building located on the south side. The building is south-oriented toward Glenwood Place and is fronted by a surface parking lot where used tires are stored and vehicles being serviced. An additional parking area is adjacent to the western elevation of the building.

***P3b. Resource Attributes:** (List attributes and codes) HP6. 1-3 story commercial building
***P4.Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: Tire shop property – View northwest, November 23, 2022. IMG_0419.
***P6. Date Constructed/Age and Source:** ☒ Historic ☐ Prehistoric ☐ Both
1941

***P7. Owner and Address:**
City of South Gate Housing Authority
8650 California Avenue
South Gate, CA 90280
***P8. Recorded by:** Gena Severen and Paige Kohler
PaleoWest, LLC
517 S. Ivy Avenue
Monrovia, CA 91016
***P9. Date Recorded:** 11/23/2022
***P10. Survey Type:** (Describe)
Intensive Pedestrian

***P11. Report Citation:**
Cultural Resource Assessment for the 9001-9019 Long Beach Blvd Housing Project, South Gate, Los Angeles County, California (Kohler, Paige, Kevin Hunt, and Robert Ramirez, 2022).

***Attachments:** ☐NONE ☒Location 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):

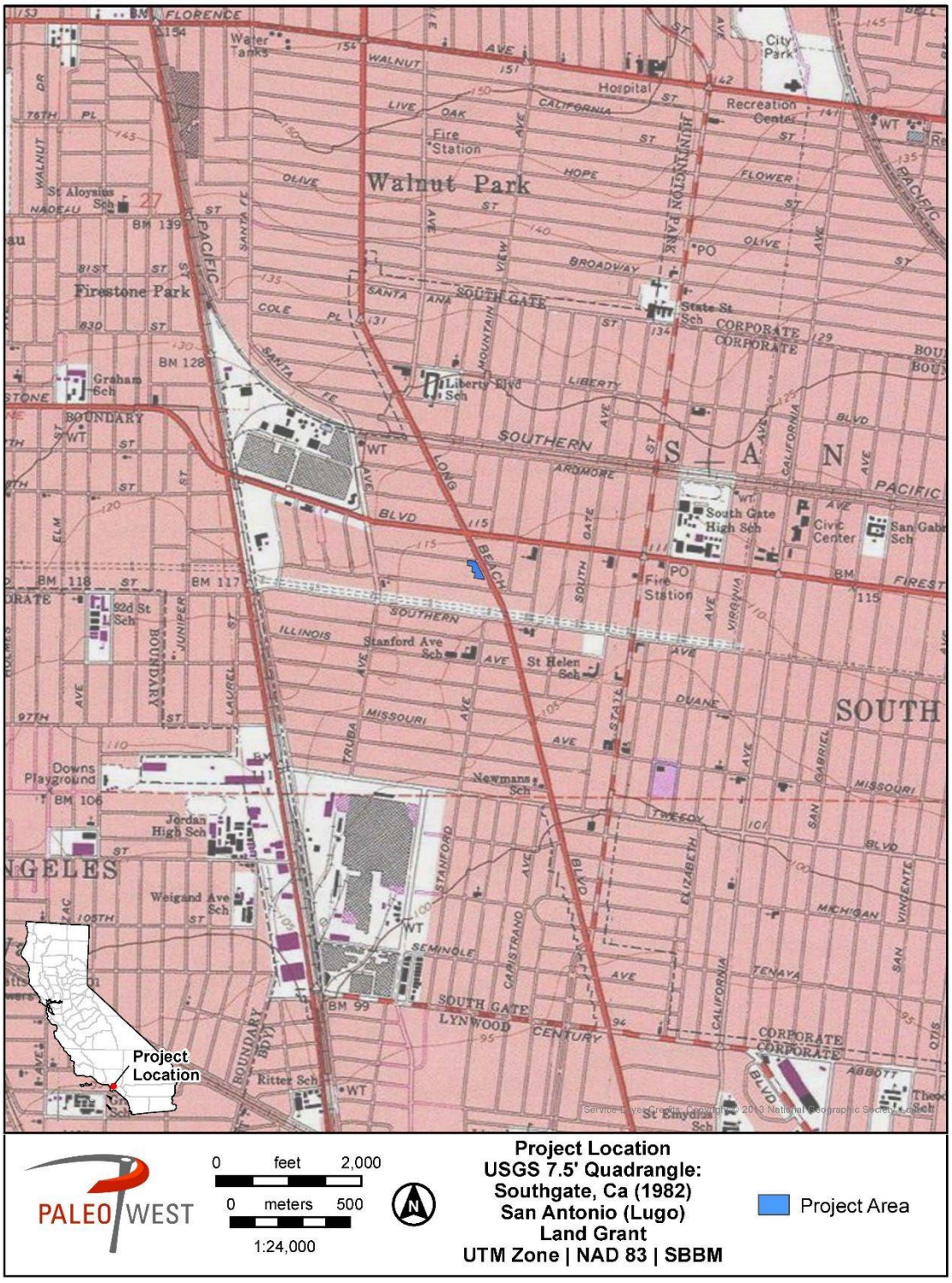
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

*Resource Name or # 9019 Long Beach Blvd

*Map Name: South Gate, CA *Scale: 1:24,000 *Date of map: 1982



* Required information

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

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** 9019 Long Beach Blvd ***NRHP Status Code** 6Z
Page 3 **of** 3

B1. Historic Name: 9019 Long Beach Blvd
B2. Common Name: Vallarta Tires
B3. Original Use: Gas/oil/service station B4. Present Use: Commercial tire shop
***B5. Architectural Style:** Industrial (utilitarian)
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Built 1941. Unknown alterations

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** n/a **Original Location:** n/a
***B8. Related Features:** brick walls attached to north elevation extending east and west from building.

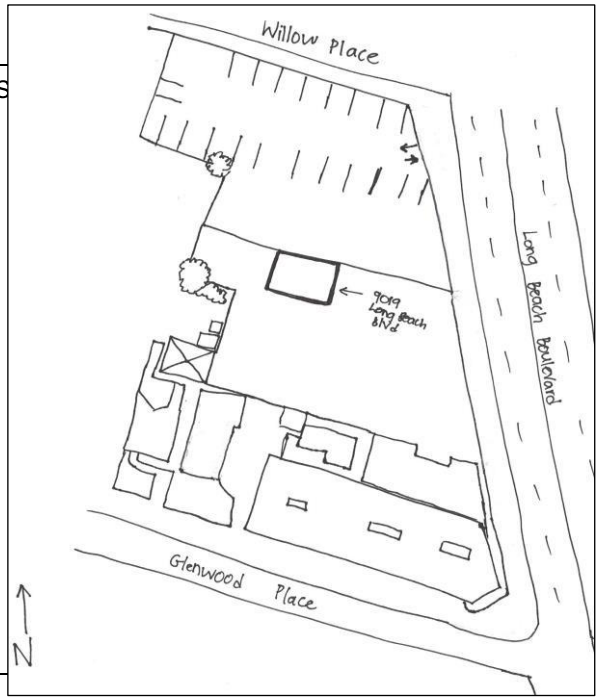
B9a. Architect: Unknown b. Builder: Unknown

***B10. Significance: Theme** n/a **Area** n/a
Period of Significance n/a **Property Type** n/a **Applicable Criteria** None

The concrete-block building at 9019 Long Beach Boulevard (Vallarta Tires) was constructed in 1941 during a period of rapid urbanization for the City of South Gate and greater Los Angeles. The 651 square-foot building appears to have been used for automotive services for the entirety of its existence and has not undergone any significant alterations. The building retains integrity of location, design, and materials, but lacks integrity of setting, workmanship, feeling, or association. The property was constructed roughly eleven years after Long Beach Boulevard and the surrounding street grid was completed. While it was among the first commercial buildings constructed along this segment of Long Beach Boulevard in South Gate, the property did not serve as a catalyst for further development and does not have strong associations with important historic events (does not satisfy NRHP/CRHR Criterion A/1). Ownership and occupant research did not reveal associations with important persons (does not satisfy NRHP/CRHR Criterion B/2). The building is utilitarian, completely unremarkable, and does not possess distinctive characteristics of a type, period, or method of construction (does not satisfy NRHP/CRHR Criterion C/3). This property is not a source (or likely source) of important information regarding history and the building was constructed using common materials with no likelihood of yielding important information about historic construction materials or technologies (does not satisfy NRHP/CRHR Criterion D/4). The property also does not meet any of the criteria for City of South Gate Landmark status.

B11. Additional Resource Attributes: (List attributes and codes)
***B12. References:**
Kohler, Paige, Kevin Hunt, and Robert Ramirez. 2022. Cultural Resource Assessment for the 9001-9019 Long Beach Blvd Housing Project, South Gate, Los Angeles County, California.

B13. Remarks:



***B14. Evaluator: Paige Kohler, M.A.**
***Date of Evaluation:** December 19, 2022

(This space reserved for official comments.)

Appendix D.
Paleontological Resources Memo

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PALEOWEST

T: 619.210.0199
F: 602.254.6280
info@paleowest.com

SAN DIEGO, CALIFORNIA
3990 Old Town Avenue, Suite A105
San Diego, CA 92110

January 24, 2023

Starla Barker
De Novo Planning
sbarker@denovoplanning.com

RE: **Geology and Paleontology Background of the 9001-9019 Long Beach Boulevard Project, Los Angeles County, California**

Dear De Novo Planning Group,

The geology of the project site is mapped by Saucedo et al. (2016) and is entirely underlain by Quaternary young alluvium, unit 2 (Qya_2). The Quaternary young alluvium was deposited during the Holocene and is composed of poorly consolidated floodplain deposits of clay, silt, and sand. Holocene alluvial deposits are typically too young to preserve paleontological resources. However, at depth the Holocene sediments may grade into older buried Pleistocene deposits that have the potential to preserve fossil remains. Pleistocene sedimentary deposits have yielded an abundant and diverse vertebrate fauna throughout California, especially within the Los Angeles Basin. Pleistocene vertebrate fossil specimens of ground sloth, bison, camel, mammoth, pocket gopher, and bird have been reported in older alluvial deposits in the Los Angeles Basin in the vicinity of the Project area (Agenbroad 2003; Bell et al. 2004; Jefferson 1991; Savage et al. 1954; University of California Museum of Paleontology [UCMP], 2022).

Museum Fossil Locality Records

The NHMLA reports that there are no previously recorded vertebrate fossil localities in the Project area; however, museum collections record at least 5 vertebrate localities identified from similar geologic deposits in the vicinity of the Project (Bell, 2023; Table 1). Recovered specimens include mammoth, unspecified vertebrates, and invertebrate fossils; from a depth of 15 feet to 20 feet below ground surface. The results of the museum records search and literature review are presented in Table 1.

Table 1. Vertebrate Localities Reported from within Pleistocene Alluvial Deposits in vicinity of the Project

Locality No.	Geologic Unit	Age	Taxa
LACM IP 2690	Unknown formation	Pleistocene	Acorn barnacle (*Megabalanus*), scaphopod (*Dentalium*), (*Stagnicola*), pond snails (*Callianax*), moon snail (*Euspira*), turban snail (*Megastrea*), Venus clam (*Tivela*), piddock (*Penitella*), cardita (*Cyclocardia*), tellin (*Tellina*), lucine (*Lucinisca*, *Epilucina*), cerith (*Lirobittium*), sand dollar (*Dendraster*), cowry (*Neobernaya*), tower shell (*Turritella*), dwarf-venus (*Nutricola*)
LACM VP 3382	Unknown formation	Pleistocene	Mammoth (Mammuthus)
LACM VP 3266	Unnamed formation (calcareous siltstone)	Pleistocene	Uncatalogued vertebrates

LACM VP 3365	Unnamed formation	Pleistocene	Mammoth (Mammuthus)
LACM VP 3382	Unknown formation (brown clay silt)	Pleistocene	Mammoth (Mammuthus)

Source: Bell, 2023

In accordance with Society of vertebrate Paleontology (2010) guidelines, the paleontological sensitivity of the project area was determined based on a literature review and online museum locality search at the UCMP. The results of the study indicate that the geologic units underlying the project area have a low paleontological sensitivity at the surface because Holocene sedimentary deposits, particularly those younger than 5,000 years old, are generally too young to contain fossilized material. The Holocene sediments may be underlain by older Quaternary (Pleistocene) alluvial deposits at an unknown depth. Pleistocene alluvium in the Los Angeles Basin typically has a high paleontological resource sensitivity due to the high potential of those deposits to yield significant vertebrate fossils.

In general, the potential for a given project to result in negative impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the project; thus, the higher the amount of ground disturbances within geological deposits with a known paleontological sensitivity, the greater the potential for negative impacts to paleontological resources. New ground disturbances are anticipated for the Project; however, the underlying sediment is likely to be Holocene in age to a significant depth, and ground disturbances are not anticipated to result in significant impacts to paleontological resources under Appendix G of State CEQA Guidelines. In the event that a Pleistocene sediments are encountered and a fossil discovery is made during the course of Project development, then in accordance with SVP (2010) guidelines, a qualified professional paleontologist should be retained in order to examine the find and to determine if further paleontological resource mitigation is warranted.

SOURCES

Agenbroad, L.D. 2003. New localities, chronology, and comparisons for the pygmy mammoth (Mammuthus exilis). In J. Reumer (ed.) Advances in Mammoth Research, Proceedings of the 2nd International Mammoth Conference, Rotterdam, the Netherlands. DEINSEA 9, p. 1-16.

Bell, C.J., E.L. Lundelius, Jr., A.D. Barnosky, R.W. Graham, E.H. Lindsay, D.R. Ruez, Jr., H.A. Semken, Jr., S.D. Webb, and R.J. Zakrzewski. 2004. The Blancan, Irvingtonian, and Rancholabrean Mammal Ages. In Woodburne, M.O. (ed.) Late Cretaceous and Cenozoic Mammals of North America: Biostratigraphy and Geochronology. Columbia University Press, New York, p. 232-314.

Jefferson, G.T. 1991. A catalogue of late Quaternary vertebrates from California. Part two, mammals. Natural History Museum of Los Angeles County Technical Report 7, p. 1-129.

Saucedo, G. J., H. G. Greene, M.P. Kennedy, and S. P. Bezore. 2016. Geologic Map of the Long Beach 30'x60' Quadrangle, California. Department of Conservation, California Geologic Survey, Regional Geologic Map Series, scale 1:100,000.

Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee.

University of California Museum of Paleontology (UCMP) Online Database. 2022. UCMP specimen search portal, http://ucmpdb.berkeley.edu/.

Sincerely,
PALEOWEST

PALEOWEST

For General Inquiries:
T: 886.563.2536
T: 602.254.6280
info@paleowest.com

San Diego, California
T: 619.210.0199
3990 Old Town Avenue, Suite A105
San Diego, California 92110
pkohler@paleowest.com



www.paleowest.com

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix C
Tribal Consultation Communications

Department of Community Development
Planning Division

8650 California Avenue
South Gate, CA 90280-3075
www.cityofsouthgate.org
P: (323) 563-9529
F: (323) 563-5358

November 22, 2022

Gabrieleno Band of Missions Indians – Kizh Nation
Andrew Salas, Chairperson
P.O Box 393
Covina, CA. 91723

RE: AB 52 CONSULTATION FOR THE 9001-19 LONG BEACH BOULEVARD RESIDENTIAL PROJECT

Dear Chairperson Salas,

The City of South Gate wishes to initiate tribal consultation for the above-mentioned project under the California Environmental Quality Act (CEQA); specifically, Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (also known as Assembly Bill 52). The City of South Gate, as the lead agency, is contacting you because your Tribe requested to be notified and provided information, under the provisions of CEQA. The proposed Project is a request to construct a 14-unit townhome development, as described below.

Please consider this letter and preliminary Project information as the formal notification of the proposed Project. The City is requesting to consult with the Gabrieleno Band of Missions Indians – Kizh Nation in order to identify tribal cultural resources that may be impacted by the proposed Project. The point of contact for the City is below.

Project Description

The City of South Gate has received an application to construct a townhome development on three parcels (approximately 0.66 acres) located at 9001-9019 Long Beach Boulevard in the City of South Gate; refer to Figure 1, Project Location Map.

The two northern parcels of the Project site (APNs 6204-025-900 and -901) are currently vacant and contain asphalt in disrepair from a former parking lot and dirt. The approximately 0.29-acre southern parcel (APN 6204-025-902) is developed with an approximately 640 square foot building and asphalt, currently occupied by an auto parts retailer and auto repair shop.

The Project proposes the removal of all existing on-site improvements and structures and construction of a common interest subdivision and affordable housing development. The Project proposes to construct 14 three-story attached townhomes in three buildings (30,700 square feet; 21.21 dwelling units/per acre); refer to Figure 2, Conceptual Site Plan. Each building will have a maximum height of 31 feet. Twelve (12) of the townhomes will be sold to qualified Low Income Homebuyers at an Affordable Housing Code ("Ownership Units") and two townhomes will be operated as rental housing units for occupancy and tenancy by Extremely Low Income Households ("ELI Housing Units"). All units will have a two-car garage, front porch, and outdoor balcony. The common areas will include guest surface parking areas, outdoor

benches, and community green space. Landscaping will be installed in the Project frontage along Willow Place and Long Beach Boulevard.

The City would appreciate receiving any comments, issues and/or concerns relating to cultural resources, sacred lands, and tribal cultural resources that you may have within the Project area. All information provided will be kept confidential.

Please respond within 30 days, pursuant to PRC 21080.3.1(d), if you would like to consult on this Project.

If you have any questions or concerns with the Project, please do not hesitant to contact Yalini Siva, Senior Planner, at the address above or via email at ysiva@sogate.org or phone 323.563.9526

Sincerely,

Yalini Siva
Senior Planner

Attachments: Figure 1, Project Location Map
Figure 2, Conceptual Site Plan

Department of Community Development
Planning Division

8650 California Avenue
South Gate, CA 90280-3075
www.cityofsouthgate.org
P: (323) 563-9529
F: (323) 563-5358

November 22, 2022

Gabrieleno Tongva Tribe
Charles Alvarez
23454 Vanowen Street
West Hills, CA. 91307

RE: AB 52 CONSULTATION FOR THE 9001-19 LONG BEACH BOULEVARD RESIDENTIAL PROJECT

Dear Charles Alvarez,

The City of South Gate wishes to initiate tribal consultation for the above-mentioned project under the California Environmental Quality Act (CEQA); specifically, Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (also known as Assembly Bill 52). The City of South Gate, as the lead agency, is contacting you because your Tribe requested to be notified and provided information, under the provisions of CEQA. The proposed Project is a request to construct a 14-unit townhome development, as described below.

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Senior Planner

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Department of Community Development
Planning Division

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November 22, 2022

Gabrieleno Tongva Indians of California Tribal Council
Anthony Morales, Chairperson
P.O. Box 693
Sab Gabriel, CA 91778

RE: AB 52 CONSULTATION FOR THE 9001-19 LONG BEACH BOULEVARD RESIDENTIAL PROJECT

Dear Chairperson Morales,

The City of South Gate wishes to initiate tribal consultation for the above-mentioned project under the California Environmental Quality Act (CEQA); specifically, Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (also known as Assembly Bill 52). The City of South Gate, as the lead agency, is contacting you because your Tribe requested to be notified and provided information, under the provisions of CEQA. The proposed Project is a request to construct a 14-unit townhome development, as described below.

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P: (323) 563-9529
F: (323) 563-5358

November 22, 2022

Gabrieleno Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O Box 490
Bellflower CA. 90707

RE: AB 52 CONSULTATION FOR THE 9001-19 LONG BEACH BOULEVARD RESIDENTIAL PROJECT

Dear Chairperson Dorame,

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Yalini Siva
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9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix D

Geology and Paleontological Background Report

PALEOWEST

T: 619.210.0199
F: 602.254.6280
info@paleowest.com

SAN DIEGO, CALIFORNIA
3990 Old Town Avenue, Suite A105
San Diego, CA 92110

January 24, 2023

Starla Barker
De Novo Planning
sbarker@denovoplanning.com

RE: **Geology and Paleontology Background of the 9001-9019 Long Beach Boulevard Project, Los Angeles County, California**

Dear De Novo Planning Group,

The geology of the project site is mapped by Saucedo et al. (2016) and is entirely underlain by Quaternary young alluvium, unit 2 (Qya_2). The Quaternary young alluvium was deposited during the Holocene and is composed of poorly consolidated floodplain deposits of clay, silt, and sand. Holocene alluvial deposits are typically too young to preserve paleontological resources. However, at depth the Holocene sediments may grade into older buried Pleistocene deposits that have the potential to preserve fossil remains. Pleistocene sedimentary deposits have yielded an abundant and diverse vertebrate fauna throughout California, especially within the Los Angeles Basin. Pleistocene vertebrate fossil specimens of ground sloth, bison, camel, mammoth, pocket gopher, and bird have been reported in older alluvial deposits in the Los Angeles Basin in the vicinity of the Project area (Agenbroad 2003; Bell et al. 2004; Jefferson 1991; Savage et al. 1954; University of California Museum of Paleontology [UCMP], 2022).

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The NHMLA reports that there are no previously recorded vertebrate fossil localities in the Project area; however, museum collections record at least 5 vertebrate localities identified from similar geologic deposits in the vicinity of the Project (Bell, 2023; Table 1). Recovered specimens include mammoth, unspecified vertebrates, and invertebrate fossils; from a depth of 15 feet to 20 feet below ground surface. The results of the museum records search and literature review are presented in Table 1.

Table 1. Vertebrate Localities Reported from within Pleistocene Alluvial Deposits in vicinity of the Project

Locality No.	Geologic Unit	Age	Taxa
LACM IP 2690	Unknown formation	Pleistocene	Acorn barnacle (*Megabalanus*), scaphopod (*Dentalium*), (*Stagnicola*), pond snails (*Callianax*), moon snail (*Euspira*), turban snail (*Megastrea*), Venus clam (*Tivela*), piddock (*Penitella*), cardita (*Cyclocardia*), tellin (*Tellina*), lucine (*Lucinisca*, *Epilucina*), cerith (*Lirobittium*), sand dollar (*Dendraster*), cowry (*Neobernaya*), tower shell (*Turritella*), dwarf-venus (*Nutricola*)
LACM VP 3382	Unknown formation	Pleistocene	Mammoth (Mammuthus)
LACM VP 3266	Unnamed formation (calcareous siltstone)	Pleistocene	Uncatalogued vertebrates

LACM VP 3365	Unnamed formation	Pleistocene	Mammoth (Mammuthus)
LACM VP 3382	Unknown formation (brown clay silt)	Pleistocene	Mammoth (Mammuthus)

Source: Bell, 2023

In accordance with Society of vertebrate Paleontology (2010) guidelines, the paleontological sensitivity of the project area was determined based on a literature review and online museum locality search at the UCMP. The results of the study indicate that the geologic units underlying the project area have a low paleontological sensitivity at the surface because Holocene sedimentary deposits, particularly those younger than 5,000 years old, are generally too young to contain fossilized material. The Holocene sediments may be underlain by older Quaternary (Pleistocene) alluvial deposits at an unknown depth. Pleistocene alluvium in the Los Angeles Basin typically has a high paleontological resource sensitivity due to the high potential of those deposits to yield significant vertebrate fossils.

In general, the potential for a given project to result in negative impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the project; thus, the higher the amount of ground disturbances within geological deposits with a known paleontological sensitivity, the greater the potential for negative impacts to paleontological resources. New ground disturbances are anticipated for the Project; however, the underlying sediment is likely to be Holocene in age to a significant depth, and ground disturbances are not anticipated to result in significant impacts to paleontological resources under Appendix G of State CEQA Guidelines. In the event that a Pleistocene sediments are encountered and a fossil discovery is made during the course of Project development, then in accordance with SVP (2010) guidelines, a qualified professional paleontologist should be retained in order to examine the find and to determine if further paleontological resource mitigation is warranted.

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University of California Museum of Paleontology (UCMP) Online Database. 2022. UCMP specimen search portal, http://ucmpdb.berkeley.edu/.

Sincerely,
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9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix E
Hazardous Materials Studies

- *Phase I Environmental Site Assessment, 9001 and 9015 Long Beach Boulevard South Gate*, Rincon Consultants Inc., March 2017
- *Phase II Environmental Site Assessment, 9001, 9015 and 9019 Long Beach Boulevard, South Gate, California,* Rincon Consultants Inc., June 21, 2019
- *Additional Phase II Environmental Site Assessment 9019 Long Beach Boulevard, South Gate*, *California*, Rincon Consultants Inc., January 28, 2020

Phase I Environmental Site Assessment

9001 and 9015 Long Beach Boulevard
South Gate, California

Prepared for:

the City of South Gate

Prepared by:

Rincon Consultants, Inc.
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Project No. 17-03990

Vivian M. Garcia
City of South Gate
8650 California Avenue
South Gate, CA 90280
Via email: vgarcia@sogate.org

Subject: **Phase I Environmental Site Assessment**
9001 and 9015 Long Beach Boulevard, South Gate, California

Dear Ms. Garcia:

This report presents the findings of a Phase I Environmental Site Assessment (ESA) completed by Rincon Consultants, Inc. for the property located at 9001 and 9015 Long Beach Boulevard in South Gate, California. The Phase I ESA was performed by Rincon Consultants, Inc. (Rincon) for the City of South Gate in general conformance with ASTM E 1527-13, the Agreement for Professional Services dated October 30, 2017, and our proposal dated March 2, 2017.

The accompanying report presents our findings and provides an opinion regarding the presence of recognized environmental conditions. Our work program for this project is intended to meet the guidelines outlined in the American Society for Testing and Materials (ASTM), Standard Practice for Environmental Site Assessments: *Phase I Environmental Site Assessment Process* (ASTM Standard E-1527-13). Our scope of services, pursuant to ASTM practice, did not include any inquiries with respect to asbestos containing building materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality unrelated to releases of hazardous substances or petroleum products into the environment, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, regulatory compliance, wetlands, or high voltage power lines.

Thank you for selecting Rincon for this project. If you have any questions, or if we can be of any future assistance, please contact us.

Sincerely,
RINCON CONSULTANTS, INC.

Sarah A. Larese
Senior Environmental Scientist

Walt Hamann, PG, CEG, CHG
Vice President, Environmental Services

Table of Contents

Phase I Environmental Site Assessment

9001 and 9015 Long Beach Boulevard

South Gate, California

Executive Summary 1
Introduction 3
Purpose 3
Scope of Services 4
Significant Assumptions, Limitations, Deviations, Exceptions, Special Terms, and Conditions 4
User Reliance 5
Site Description 5
Location 5
Subject Property and Vicinity General Characteristics 5
Descriptions of Structures, Roads, Other Improvements on the Site 6
User Provided Information 6
Records Review 6
Physical Setting Sources 6
Topography 6
Geology and Hydrogeology 6
Site Geology 7
Regional Groundwater Occurrence and Quality 7
Standard Environmental Record Sources 7
Subject Property 7
Offsite Properties 8
Orphan Listings 8
Additional Environmental Record Sources 9
Review of Agency Files 9
Subject Property 9
Adjacent Properties 9
Nearby Release Sites 9
Known or Suspect Contaminated Release Sites with Potential Vapor Migration 10
Review of State of California Division of Oil and Gas Records 11
Historical Use Information on the Property and the Adjoining Properties 12
Review of Historical Aerial Photographs 12
Review of Historical Topographic Maps 12
Review of City Directory Listings 12
Review of Fire Insurance Maps 12
Review of City of South Gate Building Permit Records 12
Summary of Historical Uses 12
Subject Property 12
Northern Adjacent Property (8935 Long Beach Boulevard) 14
Northeastern Adjacent Property (8934 Long Beach Boulevard) 14

DRAFT

Eastern Adjacent Property (9000, 9010, and 9014 Long Beach Boulevard) 14
Southwestern Adjacent Property (2824 and 2834 Willow Place) 15
Western Adjacent Property (2850 Willow Place) 15
Gaps in Historical Sources 15
Interviews 15
Interview with Owner/Site Manager 15
Interviews with Occupants 16
Interviews with Local Government Officials 16
Interviews with Others 16
Site Reconnaissance 16
Methodology and Limiting Conditions 16
Current Use of the Property and Adjacent Properties 16
Past Use of the Property and Adjacent Properties 17
Current or Past Uses in the Surrounding Areas 17
Geologic, Hydrogeologic, Hydrologic and Topographic Conditions 17
General Description of Structures 17
Exterior Observations 17
Storage Tanks 17
Drums 17
Hazardous Substances and Petroleum Products 17
Unidentified Substance Containers 17
Odors 17
Pools of Liquid 18
Indications of Polychlorinated Biphenyls (PCBs) 18
Other Conditions of Concern 18
Evaluation 18
Findings 18
Opinions 18
Conclusions and Recommendations 19
Deviations 19
References 19
Signatures of Environmental Professionals 21
Qualifications of Environmental Consultants 22

Figures
Figure 1 – Vicinity Map
Figure 2 – Site Map
Figure 3 – Adjacent Land Use Map
Figures 4 – Site Photographs

Appendices
Appendix A – Interview Documentation
Appendix B – Regulatory Records Documentation
Appendix C – Historical Research Documentation

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EXECUTIVE SUMMARY

This report presents the findings of a Phase I Environmental Site Assessment (ESA) for the property located at 9001 and 9015 Long Beach Boulevard in South Gate, California (Figure 1, Vicinity Map). The subject property is currently a paved parking lot on the northern parcel and vacant land on the southern parcel.

Rincon performed a reconnaissance of the subject property on November 28, 2017. The purpose of the reconnaissance was to observe existing subject property conditions and to obtain information indicating the presence of recognized environmental conditions in connection with the subject property. The use, storage or disposal of hazardous materials on the subject property was not observed during the site reconnaissance.

The subject property is located in an area that is primarily comprised of commercial and residential land uses. Properties in the vicinity of the subject property include hotels, restaurants, single-family residences, retail stores, and grocery stores.

Environmental Data Resources, Inc. (EDR) was contracted to provide a database search of public lists of sites that generate, store, treat or dispose of hazardous materials or sites for which a release or incident has occurred. The EDR search was conducted for the subject property and included data from surrounding sites within a specified radius of the property. The subject property was not listed on any of the regulatory databases reviewed. One adjacent site was listed in databases searched by EDR:

- ***Argos Auto Repair located at 9019 Long Beach Boulevard***: This property is located adjacent to the south of the subject property. The RCRA-SQG listing indicates that the site was a small quantity generator of hazardous waste. No violations were noted in the EDR report. A review of historical documents indicates automotive greasing and "gas & oil" facility in 1950 and automotive repair from 1970 through 2000. During the 2017 site visit, the southern adjacent property was observed to be in use as an automotive repair shop.

  No known documented releases associated with this adjacent site were identified. However, based on the proximity to the subject property (adjacent), the reported groundwater flow direction (to the north- northwest, towards the subject property), and duration of the automotive facility (over 50 years), if an undocumented release has occurred, there is the potential for contamination (if any) to be migrating beneath the subject property.

One nearby property was listed as a release site in databases searched by EDR:

> ***ARCO located at 8904 Long Beach Boulevard:*** This property is located approximately 215 feet northeast of the subject property. The site was listed in the HIST UST, HAZNET EDR Hist Auto, RCRA-SQG, FINDS, ECHO, UST, LUST, HIST CORTESE, LOS ANGELES CO. HMS, and SWEEPS UST databases. Based on the documented groundwater flow direction (away from the subject property) and the distance from the subject property (over 200 feet) the ARCO site is not expected to be affecting the soil or groundwater beneath the subject property.

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Historical sources reviewed as part of the Phase I ESA include aerial photographs and topographic maps. The photos and maps reviewed indicate that the subject property was vacant from 1896 through 1925, remained mostly vacant with a small commercial restaurant/bar on the southeastern corner from 1928 through 2006. A paved parking lot (on the northern parcel) has been present from 1952 through present day. City directories list Long Beach Boulevard Driftwood in 1951, Little Abners (bar/club) from 1981 through 2000, and Club Oz in 2006 at 9015 Long Beach Boulevard. The former onsite structure was demolished in 2006/2007.

Based on the findings of this Phase I ESA, it is our opinion that no recognized environmental conditions were identified for the subject property. This assessment has revealed evidence of the following Potential Recognized Environmental Conditions in connection with adjacent properties as follows:

Potential Recognized Environmental Conditions

A. Adjacent automotive repair facility and historical gasoline stations – A review of historical documents indicates the following adjacent automotive repair facilities and gasoline stations:

- 9019 Long Beach Boulevard: This property is located adjacent to the south of the subject property. A review of historical documents indicates automotive greasing and "gas & oil" facility in 1950 and automotive repair from 1970 through the present day.
- 8934 Long Beach Boulevard: This property is located adjacent to the northeast of the subject property, following the intersection of Willow Place and Long Beach Boulevard. A review of historical documents indicates the site was developed with a gasoline service station from 1928 through 1947.
- 9000 Long Beach Boulevard: This property is located adjacent to the east of the subject property, following Long Beach Boulevard. A review of historical documents indicates the site was developed with a gasoline service station from 1950 through 1970.

Although no known documented releases associated with these sites were identified, if an undocumented release has occurred, there is the potential for contamination (if any) to be migrating beneath the subject property. Therefore, the adjacent automotive repair facility and historical gasoline stations are considered Potential Recognized Environmental Conditions.

To evaluate the potential subject property impact associated with the adjacent automotive repair and historical gasoline stations, a soil vapor survey at the subject property is recommended.

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INTRODUCTION

This report presents the findings of a Phase I ESA conducted for the property located at 9001 and 9015 Long Beach Boulevard in South Gate, California (Figure 1, Vicinity Map). The Phase I ESA was performed by Rincon Consultants, Inc. (Rincon) for the City of South Gate in general conformance with ASTM E 1527-13, the Agreement for Professional Services dated October 30, 2017, and our proposal dated March 2, 2017. The following sections present our findings and provide our opinion as to the presence of recognized environmental conditions.

PURPOSE

The City of South Gate has requested this assessment and will use the assessment to provide information for the purpose of purchasing or acquiring the subject property. The purpose of this Phase I ESA was to assess the environmental conditions of a property, taking into account commonly and reasonably ascertainable information and to qualify for Landowner Liability Protections under the Brownfields Amendments to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

A recognized environmental condition (REC) is defined pursuant to ASTM E 1527-13 as,

> *"the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment; 3) under conditions that pose a material threat of a future release to the environment".*

A Controlled REC is defined pursuant to ASTM E 1527-13 as,

> *"a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report".*

A Historical REC is defined pursuant to ASTM E 1527-13 as,

> *"a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by regulatory authority, without subjecting the property to any required controls (for example, use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP [Environmental Professional] considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition".*

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A de minimis condition is defined pursuant to ASTM E 1527-13 as,

> "*a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions*".

SCOPE OF SERVICES

The scope of services conducted for this study is outlined below:

- Perform a reconnaissance of the site to identify obvious indicators of the existence of hazardous materials.
- Observe adjacent or nearby properties from public thoroughfares in an attempt to see if such properties are likely to use, store, generate, or dispose of hazardous materials.
- Obtain and review an environmental records database search from Environmental Data Resources, Inc. (EDR) to obtain information about the potential for hazardous materials to exist at the subject property or at properties located in the vicinity of the subject property.
- Review files for the subject property and immediately adjacent properties as identified in the EDR report, as applicable.
- Review the current U.S. Geological Survey (USGS) topographic map to obtain information about the subject property's topography and uses of the subject property and properties in the vicinity of the subject property.
- Review additional pertinent record sources (e.g., California Division of Oil and Gas records, online databases of hazardous substance release sites), as necessary, to identify the presence of RECs at the subject property.
- Review reasonably ascertainable historical resources (e.g., aerial photographs, topographic maps, fire insurance maps, city directories) to assess the historical land use of the subject property and adjacent properties.
- Provide a property owner interview questionnaire to the property owner or a designated subject property representative identified to Rincon by the client.
- Provide a user interview questionnaire to a representative of the client, the user of the Phase I ESA.
- Conduct interviews with other property representatives (e.g., key site manager, occupants), as applicable.
- Review client-provided information (e.g., previous environmental reports, title documentation), as applicable.

SIGNIFICANT ASSUMPTIONS, LIMITATIONS, DEVIATIONS, EXCEPTIONS, SPECIAL TERMS, AND CONDITIONS

This work is intended to adhere to good commercial, customary, and generally accepted environmental investigation practices for similar investigations conducted at this time and in this geographic area. No guarantee or warranties, expressed or implied are provided. The findings and opinions conveyed in this report are based on findings derived from a site

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reconnaissance, review of an environmental database report, specified regulatory records and historical sources, and comments made by interviewees. This report is not intended as a comprehensive site characterization and should not be construed as such. Standard data sources relied upon during the completion of Phase I ESAs may vary with regard to accuracy and completeness. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research.

Rincon has not found evidence that hazardous materials or petroleum products exist at the subject property at levels likely to warrant mitigation. Rincon does not under any circumstances warrant or guarantee that not finding evidence of hazardous materials or petroleum products means that hazardous materials or petroleum products do not exist on the subject property. Additional research, including surface or subsurface sampling and analysis, can reduce the client's risks, but no techniques commonly employed can eliminate these risks altogether.

In addition, pursuant to ASTM E 1527-13 practice, our scope of services did not include any inquiries with respect to asbestos containing building materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, indoor air quality unrelated to release of hazardous substances or petroleum products into the environment, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, regulatory compliance, wetlands, or high voltage power lines.

USER RELIANCE

The City of South Gate has requested this assessment and will use the assessment to provide information for the purpose of purchasing or acquiring the subject property. This Phase I ESA was prepared for use solely and exclusively by the City of South Gate. No other use or disclosure is intended or authorized by Rincon. Also, this report is issued with the understanding that it is to be used only in its entirety. It is intended for use only by the client, and no other person or entity may rely upon the report without the express written consent of Rincon.

SITE DESCRIPTION

Location

The subject property is a 0.35-acre property located southwest of the intersection of Willow Place and Long Beach Boulevard in South Gate, California (Figure 2, Site Map). The property is identified as 9001 and 9015 Long Beach Boulevard and Assessor Parcel Numbers 6204-025-900 and 6204-025-901.

Subject Property and Vicinity General Characteristics

The subject property is currently a paved parking lot on the northern parcel and vacant land on the southern parcel.

The subject property is located in an area that is primarily comprised of commercial and residential land uses. Properties in the vicinity of the subject property include hotels, restaurants, single-family residences, retail stores, and grocery stores. The current adjacent land uses are described in Table 1 and depicted on Figure 3, Adjacent Land Use Map.

Table 1 – Current Uses of Adjacent Properties

Area	Use
Northern Properties	Willow Place followed by commercial (hotel)
Eastern Properties	Long Beach Boulevard followed by commercial (hotel)
Southern Properties	Commercial (automotive repair facility)
Western Properties	Residential

Descriptions of Structures, Roads, Other Improvements on the Site

During the site reconnaissance, no structures, roads or other improvements were observed on the subject property.

USER PROVIDED INFORMATION

As described in ASTM E 1527-13 Section 6, we attempted to interview the City of South Gate for actual knowledge pertaining to the subject property to help identify recognized environmental conditions in connection with the subject property. The User Questionnaire as provided by ASTM Appendix X3, was provided to the City of South Gate, prior to completion of the site reconnaissance. However, a completed questionnaire has not been returned as of the date of this report.

RECORDS REVIEW

PHYSICAL SETTING SOURCES

Topography

The current USGS topographic map (South Gate Quadrangle, 2012) indicates that the subject property is situated at an elevation of about 115 feet above mean sea level with topography sloping down to the southwest.

Geology and Hydrogeology

The site lies within the Peninsular Ranges Geologic Province of California. This geomorphic province is traversed by a group of northwest trending sub-parallel fault zones and encompasses an area that extends 125 miles from the Transverse Ranges and the Los Angeles Basin south to the Mexican Border and beyond another 775 miles to the tip of Baja California. Rocks within the Peninsular Range Province were emplaced during Cretaceous age orogenic events and uplifted into the present mountain ranges during the late Tertiary and Quaternary. Igneous, metamorphic and sedimentary rocks are all found within the Peninsular Ranges.

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Site Geology

According to the Geologic Map of California, Long Beach Sheet (1962), the site is primarily underlain by Quaternary geologic age alluvium. Specifically, the alluvium consists of young alluvium. Older wash deposits and younger fan deposits can also be found in the surrounding area (CDMG, 1969).

Regional Groundwater Occurrence and Quality

The site is located within the Coastal Plain of Los Angeles groundwater basin.

During the preparation of this Phase I ESA, we reviewed the California State Water Resources Control Board's (SWRCB's) online GeoTracker database to determine groundwater flow direction in the vicinity of the site:

- Groundwater monitoring reports for a nearby ARCO station located at 8904 Long Beach Boulevard Road (about 215 feet northeast of the subject property) indicate that the approximate depth to groundwater is 60 feet below grade, and flows to the north-northwest.

STANDARD ENVIRONMENTAL RECORD SOURCES

Environmental Data Resources, Inc. (EDR) was contracted to provide a database search of public lists of sites that generate, store, treat or dispose of hazardous materials or sites for which a release or incident has occurred. The EDR search was conducted for the subject property and included data from surrounding sites within specified radii of the property. A copy of the EDR report, which specifies the ASTM search distance for each public list, is included as Appendix B. As shown on the attached EDR report, federal, state and county lists were reviewed as part of the research effort. Please refer to Appendix B for a complete listing of sites reported by EDR and a description of the databases reviewed.

The Map Findings Summary, included in the EDR report, provides a summary of the databases searched, the number of reported facilities within the search radii, and whether the facility is located onsite or adjacent to the subject property. The following information is based on our review of the Map Findings Summary and the information contained in the EDR report.

Subject Property

The subject property was not listed on any of the regulatory databases reviewed.

In addition, a review of the National Pipeline Mapping System (NMPS) online Public Map Viewer[1] indicates that no gas transmission pipelines or hazardous liquid pipelines are located on the subject property or adjacent properties.

[1] https://www.npms.phmsa.dot.gov/PublicViewer/

Offsite Properties

Offsite properties listed by EDR fall under two general categories of databases: those reporting unauthorized releases of hazardous substances (e.g., LUST, National Priority List [a.k.a. Superfund sites], and corrective action facilities), and databases of businesses permitted to use hazardous materials or generate hazardous wastes, for which an unauthorized release has not been reported to a regulatory agency.

Rincon reviewed the EDR Radius Map and select detailed listings to evaluate their potential to impact the subject property, based on the following factors:

- Reported distance of the facility from the subject property
- The nature of the database on which the facility is listed, and/or whether the facility was listed on a database reporting unauthorized releases of hazardous materials, petroleum products, or hazardous wastes
- Reported case type (e.g., soil only, failed UST test only)
- Reported substance released (e.g., chlorinated solvents, gasoline, metals)
- Reported regulatory agency status (e.g., case closed, "no further action")
- Location of the facility with respect to the reported groundwater flow direction (discussed in the Geology and Hydrogeology section of this report)

Facilities/properties that were interpreted by Rincon to be of potential environmental concern to the subject property, based on one or more of the factors listed above, are summarized in Table 2. In accordance with ASTM, contamination migration pathways in soil, groundwater, and soil vapor were considered in our analysis of offsite properties of potential environmental concern.

Table 2 – EDR Listing Summary of Select Sites Within One-Eighth Mile of the Subject Site

Site Name	EDR Site ID	Site Address	Distance from Subject Property (miles)	Database Reference
Adjacent Properties				
Argos Auto Repair	1	9019 Long Beach Blvd	Adjacent Property – South	RCRA-SQG
Nearby Release Sites				
ARCO #1109, ARCO Prestige Stations	A2 - A9	8904 Long Beach Blvd	Less than 1/8 mile (215 feet) – Northeast	HIST UST, HAZNET EDR Hist Auto, RCRA-SQG, FINDS, ECHO, UST, LUST, HIST CORTESE, LOS ANGELES CO. HMS, SWEEPS UST

Regulatory agency information reviewed for the listings in the table above are summarized in the Additional Environmental Record Sources section of this report.

Orphan Listings

EDR reported 11 orphan or unmapped site listings, which EDR is unable to plot due to insufficient address information. Based on Rincon's review of the limited address information

or site descriptions for the orphan listings, none of the listings are expected to impact the subject property.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

Review of Agency Files

As a follow-up to the database search, Rincon reviewed regulatory information for facilities within the specified search radii that were interpreted to have the potential to impact the subject property, based on one or more factors previously discussed (e.g., distance, open case status, upgradient location, soil vapor migration).

The following is a summary of our review of regulatory information obtained from review of online sources (e.g., SWRCB GeoTracker database, DTSC EnviroStor database) and/or files requested from the applicable regulatory agency, as described below.

Subject Property
The subject property was not listed in any of the databases searched by EDR.

Adjacent Properties
One adjacent site was listed in databases searched by EDR:

- ***Argos Auto Repair located at 9019 Long Beach Boulevard***: This property is located adjacent to the south of the subject property. The RCRA-SQG listing indicates that the site was a small quantity generator of hazardous waste. No violations were noted in the EDR report. A review of historical documents indicates automotive greasing and "gas & oil" facility in 1950 and automotive repair from 1970 through 2000. During the 2017 site visit, the southern adjacent property was observed to be in use as an automotive repair shop.

  No known documented releases associated with this adjacent site were identified. However, based on the proximity to the subject property (adjacent), the reported groundwater flow direction (to the north- northwest, towards the subject property), and duration of the automotive facility (over 50 years), if an undocumented release has occurred, there is the potential for contamination (if any) to be migrating beneath the subject property.

Nearby Release Sites
One nearby property was listed as a release site in databases searched by EDR:

- ***ARCO located at 8904 Long Beach Boulevard:*** This property is located approximately 215 feet northeast of the subject property. The site was listed in the HIST UST, HAZNET EDR Hist Auto, RCRA-SQG, FINDS, ECHO, UST, LUST, HIST CORTESE, LOS ANGELES CO. HMS, and SWEEPS UST databases. The following site history is based on the Request for Closure Letter prepared by Stantec dated August 20, 2008:

  "In May 1992, Alton Geoscience (Alton) installed seven soil vapor extraction (SVE) wells and six hand-auger soil borings in the vicinity of the former [underground storage tanks] *USTs and dispenser islands. Soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and for benzene, toluene, ethylbenzene and total xylenes (collectively BTEX). Additionally, select soil samples were analyzed for total lead. TPHg was detected in three soil samples at a maximum*

concentration of 44 milligrams per kilogram (mg/kg). No groundwater was encountered during drilling activities at the site.

In October 2000, three 12,000-gallon USTs, four dispensers, and associated product piping were removed during facility upgrade activities. The USTs were inspected for structural integrity and were determined to be in good condition. Approximately 580 tons of soil/gravel was [disposed offsite]. *The former UST area was backfilled and compacted with 1,200 tons of clean soil. A new UST area was excavated to a total depth of 17 feet to accommodate the installation of two new double-wall fiberglass USTs (one 12,000-gallon and one 20,000-gallon). Approximately 1,325 tons of soil was excavated from the new UST area and was* [disposed offsite]. *Soil samples from beneath the former USTs, former dispensers, and product piping* [were collected]. *The soil samples were analyzed for TPHg and for BTEX, methyl-tertiary-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-tertiary-butyl ether (ETBE), tertiary- amyl-methyl ether (TAME), and tertiary butanol (TBA). Select soil samples were analyzed for total petroleum hydrocarbons as diesel (TPHd). Analytical results from soil samples identified maximum concentrations of 14,000 mg/kg TPHg, 46 mg/kg benzene, 76 mg/kg MTBE, and 800 mg/kg TBA. TPHd, DIPE, ETBE, and TAME were not detected above the laboratory reporting limit in any soil sample analyzed.*

In September 2003, four soil borings were installed in the vicinity of the dispenser islands and former USTs to assess the lateral and vertical extent of hydrocarbon impact identified during facility upgrade activities conducted in 2000. Groundwater was encountered at approximately 62 feet bgs. [Several of the soil borings] *were converted to dual-nested groundwater monitoring and SVE wells. Groundwater wells were installed to depths of approximately 75 to 80 feet bgs. The maximum TPHg, benzene, and TBA concentrations were identified at 4,800 mg/kg, 1.2 mg/kg, and 110 mg/kg, respectively. The maximum MTBE concentration was 31 mg/kg.*

From May 19 through May 21, 2004, a total of four groundwater monitoring wells [were installed at the site]. *A total of 62 soil samples were collected and analyzed. Detectable concentrations of petroleum hydrocarbon constituents were identified in 30 of the 62 samples. TPHg was detected in one sample at 0.83 mg/kg. Benzene was identified in eight samples at concentrations ranging from 0.0028 mg/kg to 0.39 mg/kg. MTBE was identified in 29 samples at concentrations ranging from 0.0052 mg/kg to 13 mg/kg. TBA was identified in 15 samples at concentrations ranging from 0.059 mg/kg to 0.52 mg/kg."*

Quarterly groundwater monitoring and sampling have been conducted at the site from Fourth Quarter 2003 through 2008.

On December 14, 2009, the Los Angeles Regional Water Quality Control Board confirmed the completion of a site investigation and corrective action for the USTs formerly located at the site.

Based on the documented groundwater flow direction (away from the subject property) and the distance from the subject property (over 200 feet) the ARCO site is not expected to be affecting the soil or groundwater beneath the subject property.

KNOWN OR SUSPECT CONTAMINATED RELEASE SITES WITH POTENTIAL VAPOR MIGRATION

The EDR report was reviewed to identify nearby known or suspect contaminated sites that have the potential for contaminated vapor originating from the nearby site to be migrating beneath the subject property. Based on the ASTM E 2600-15, *Standard Guide for Vapor Encroachment*

Screening on Property Involved in Real Estate Transactions, the following minimum search distances were initially used to determine if contaminated soil vapors from a nearby known or suspect contaminated site have the potential to be migrating beneath the subject property:

- 1/10 mile (528 feet) for petroleum hydrocarbons
- 1/3 mile (1,760 feet) for other contaminants of concern (COCs)

If upgradient known or suspect contaminated sites are located within the above referenced distances from the subject property, online resources are reviewed to determine the extent of the contaminated plume at those sites. The following describes search distances for contaminated plumes of petroleum hydrocarbons and other COCs.

Petroleum Hydrocarbons

Based on our review of the EDR report, the following site has the potential to have petroleum hydrocarbon-impacted soil or groundwater plumes located within 30 feet of the subject property:

- ***Argos Auto Repair located at 9019 Long Beach Boulevard***: This property is located adjacent to the south of the subject property. The RCRA-SQG listing indicates that the site was a small quantity generator of hazardous waste. No violations are noted. A review of historical documents indicates automotive greasing and "gas & oil" facility in 1950 and automotive repair from 1970 through 2000.

No known documented releases associated with this adjacent site were identified. However, based on the proximity to the subject property (adjacent), the reported groundwater flow direction (to the north-northwest towards the subject property), and duration of the automotive facility (over 50 years), if an undocumented release has occurred, there is the potential for contamination (if any) to be migrating beneath the subject property.

Other COCs

Based on our review of the EDR report, there are no adjacent or upgradient known or suspect contaminated soil or groundwater plumes located within 100 feet of the subject property.

REVIEW OF STATE OF CALIFORNIA DIVISION OF OIL AND GAS RECORDS

A review of the Department of Conservation, Division of Oil, Gas & Geothermal Resources Online Mapping System indicates that no oil wells are located on the subject property or adjacent properties, or within ¼ mile of the subject property.

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HISTORICAL USE INFORMATION ON THE PROPERTY AND THE ADJOINING PROPERTIES

The historical records review completed for this Phase I ESA includes aerial photographs, topographic maps, fire insurance maps, and city directories as detailed in the following sections. Copies of the historical resources reviewed are included in Appendix C. Table 3 provides a summary of the historical use information available for the subject property.

Review of Historical Aerial Photographs

Aerial photographs from EDR's aerial photograph collection were obtained and reviewed.

Review of Historical Topographic Maps

Historical topographic maps from EDR's map collection were obtained and reviewed.

Review of City Directory Listings

EDR was contracted to provide copies of city directory listings for the subject property.

Review of Fire Insurance Maps

EDR was contracted to provide copies of fire insurance maps (i.e. Sanborns) for the subject property.

Review of City of South Gate Building Permit Records

On November 1, 2017, we contacted the City of South Gate to obtain copies of historic building permits for the subject property. On November 21, 2017, Raquel Larios from the City of South Gate indicated building permits are available for an additional cost. Based on the information provided by other sources, review of building permit records was not deemed necessary.

Summary of Historical Uses

Subject Property

Based on our review of the documents listed above and summarized in Table 3 below, it appears that the subject property was vacant from 1896 through 1925, remained mostly vacant with a small commercial restaurant/bar on the southeastern corner from 1928 through 2006. A paved parking lot (on the northern parcel) has been present from 1952 through present day. City directories list Long Beach Boulevard Driftwood in 1951, Little Abners (bar/club) from 1981 through 2000, and Club Oz in 2006 at 9015 Long Beach Boulevard. The former onsite structure was demolished in 2006/2007.

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Table 3 – Historical Use of the Subject Property

Year	Use	Source
Subject Property		
1896	Subject property is vacant.	Topographic Map (TM) – Downey Quadrangle
1899	Similar to 1896 TM.	TM – Downey Quadrangle
1902	Similar to 1899 TM.	TM – Downey Quadrangle
1923	Subject property is vacant.	Aerial Photograph (AP)
1923	Similar to 1902 TM.	TM – Watts Quadrangle
1924,1925	Similar to 1923 TM.	TM – Watts Quadrangle
1928	Subject property is mostly vacant with small building on the southeastern corner.	AP
1928	Subject property is mostly vacant with small restaurant on the southeastern corner.	Sanborn Map (SM)
1936,1937	Subject property is developed.	TM – Watts Quadrangle
1938	Similar to 1928 AP.	AP
1942	Similar to 1936,1937 TM.	TM – Downey Quadrangle
1943	Similar to 1942 TM.	TM – Downey Quadrangle
1947	Similar to 1943 TM.	TM – Downey Quadrangle
1947	Similar to 1938 AP.	AP
1949	Similar to 1947 TM.	TM – South Gate Quadrangle
1950	The northern parcel is vacant land. The southern parcel is depicted with a larger (possibly remodeled) restaurant building and associated detached automotive (single-car) garage.	SM
1951	9015 Long Beach Blvd: Long Beach Boulevard Driftwood	CD
1952	Similar to 1949 TM.	TM – South Gate Quadrangle
1952	Similar to 1947 AP with the addition of paved parking on the northern portion.	AP
1963	Similar to 1952 AP.	AP
1964	Similar to 1952 TM.	TM – South Gate Quadrangle
1970	Similar to 1950 SM, however, the restaurant is depicted as a commercial store and the northern parcel is depicted as parking.	SM
1972	Similar to 1964 TM.	TM – South Gate Quadrangle
1977	Similar to 1963 AP.	AP
1979	Similar to 1977 AP.	AP
1981	Similar to 1972 TM.	TM – South Gate Quadrangle
1981	9015 Long Beach Blvd: Little Abners (bar/club)	CD
1981	Similar to 1979 AP.	AP
1986	9015 Long Beach Blvd: Little Abners	CD
1989	Similar to 1981 AP.	AP

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Year	Use	Source
1990	9015 Long Beach Blvd: Little Abners	CD
1994	Similar to 1989 AP.	AP
1995	9015 Long Beach Blvd: Little Abners	CD
2000	9015 Long Beach Blvd: Little Abners	CD
2002	Similar to 1994 AP.	AP
2005	Similar to 2002 AP.	AP
2006	9015 Long Beach Blvd: Club Oz	CD
2009	Subject property is a paved parking lot (northern parcel) and vacant land (southern parcel).	AP
2010	Similar to 2009 AP.	AP
2012	Similar to 1981 TM.	TM – South Gate Quadrangle
2012	Similar to 2010 AP.	AP

Northern Adjacent Property (8935 Long Beach Boulevard)
Based on our review of the documents listed above, it appears that the northern adjacent property, following Willow Place, was vacant from 1896 through 1928, and developed with a motel from 1938 through present day. City directories list Long Beach Motel in 1951 and Sand's Motel from 1962 through 2006.

Northeastern Adjacent Property (8934 Long Beach Boulevard)
Based on our review of the documents listed above, it appears that the northeastern adjacent property, following the intersection of Willow Place and Long Beach Boulevard, was vacant from 1896 through 1923, developed with a gasoline service station from 1928 through 1947, and has been in use as a restaurant from 1950 through present day.

Eastern Adjacent Property (9000, 9010, and 9014 Long Beach Boulevard)
Based on our review of the documents listed above, it appears that the northern portion of the eastern adjacent property, following Long Beach Boulevard, was vacant from 1896 through 1938, developed with a gasoline service station from 1950 through 1970, vacant from 1977 through 1981 and developed with the existing motel from 1989 through present day. City directories list Texaco Service from 1951 through 1962 at 9000 Long Beach Boulevard.

Based on our review of the documents listed above, it appears that the southern portion of the eastern adjacent property, following Long Beach Boulevard, was vacant from 1896 through 1938, developed with a motel from 1950 through 1981 and developed with the existing motel from 1989 through present day.

City directories list Rest EZ motel from 1951 through 2006 and Oak Tree motel from 1990 through 2014 at 9010 Long Beach Boulevard.

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Southwestern Adjacent Property (2824 and 2834 Willow Place)
Based on our review of the documents listed above, it appears that the southwestern adjacent property was vacant from 1896 through 1928, and has been in residential use from 1938 through present day.

Southern Adjacent Property (9019 Long Beach Boulevard)
Based on our review of the documents listed above, it appears that the southern adjacent property was vacant from 1896 through 1928, developed with a small structure in 1938, developed with several commercial structures from 1947 through 2002, and redeveloped into its current configuration with one commercial structure and adjacent paved parking from 2005 through present day. Sanborn maps and city directories indicate automotive greasing and "gas & oil" facility in 1950 and automotive repair from 1970 through 2000.

Western Adjacent Property (2850 Willow Place)
Based on our review of the documents listed above, it appears that the western adjacent properties have been in residential use from 1928 through present day.

Gaps in Historical Sources

Several gaps of greater than 5 years were identified in the historical records reviewed, from 1902 to 1923, 1928 to 1936, 1952 to 1963, and 1964 to 1970. These gaps are considered insignificant because the subject property use appears to be similar prior to and following the gaps.

INTERVIEWS

Rincon Consultants performed interviews regarding the subject property and surrounding areas. The purpose of the interviews was to discuss current and historical subject property conditions and to obtain information indicating the presence of recognized environmental conditions in connection with the property.

INTERVIEW WITH OWNER/SITE MANAGER

An interview questionnaire was provided to the property owner prior to the site reconnaissance. A copy of the completed questionnaire is included in Appendix A. Abel Torres, Housing and Grants Analyst for City of South Gate, completed the owner questionnaire. The following information is based on information obtained during our review of the completed questionnaire.

Mr. Torres indicated the following:

- The Housing Authority of the City of South Gate obtained ownership of the subject property on March 23, 2011.
- The former owner of the subject property was City of South Gate Community Development Commission.

Mr. Torres indicated he is unaware of the presence of industrial drums, storage tanks (above or below ground), fill dirt, pits, ponds, lagoons, sumps, clarifiers, solvent degreasers, stained soil, hazardous materials or hazardous wastes on the site.

Mr. Torres indicated he is unaware of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property. In addition, he is not aware of any notice from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

INTERVIEWS WITH OCCUPANTS

Because the subject property is currently a paved parking lot and vacant land, no occupants were interviewed as part of this research effort.

INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

On November 1, 2017, we contacted the City of South Gate to obtain copies of historic building permits for the subject property.

INTERVIEWS WITH OTHERS

Rincon did not attempt to interview neighboring property owners or others as part of this Phase I ESA.

SITE RECONNAISSANCE

Rincon Consultants performed a reconnaissance of the subject property on November 28, 2017. The purpose of the reconnaissance was to observe existing subject property conditions and to obtain information indicating the presence of recognized environmental conditions in connection with the property.

METHODOLOGY AND LIMITING CONDITIONS

The site reconnaissance was conducted by:

1. Observing the subject property from public thoroughfares,
2. Observing the adjacent properties from public thoroughfares, and
3. Observing the subject property from driveways.

CURRENT USE OF THE PROPERTY AND ADJACENT PROPERTIES

The subject property is currently a paved parking lot (northern parcel) and vacant land (southern parcel). Adjacent properties include hotels, restaurants, single-family residences, an automotive repair shop, retail stores, and grocery stores.

PAST USE OF THE PROPERTY AND ADJACENT PROPERTIES

Based on our site reconnaissance, past uses at the subject property and adjacent properties are not readily apparent.

CURRENT OR PAST USES IN THE SURROUNDING AREAS

The subject property is surrounded by commercial and residential land uses as detailed in the Site Description section of this report. Past uses of the surrounding area are not readily apparent based on the site reconnaissance.

GEOLOGIC, HYDROGEOLOGIC, HYDROLOGIC AND TOPOGRAPHIC CONDITIONS

Geologic, hydrogeologic, hydrologic, and topographic information are as previously stated in the Physical Settings Section of this report.

GENERAL DESCRIPTION OF STRUCTURES

The subject property is a parking lot and vacant land; there are no onsite structures.

EXTERIOR OBSERVATIONS

Storage Tanks

During the site reconnaissance, no above- or below-ground storage tanks or evidence of underground storage tanks were observed on the subject property.

Drums

During the site reconnaissance, no drums were observed on the subject property.

Hazardous Substances and Petroleum Products

No hazardous substances or petroleum products were identified at the subject property.

Unidentified Substance Containers

No unidentified substance containers or unidentified containers that might contain hazardous substances were observed during the site reconnaissance.

Odors

During the site reconnaissance, Rincon did not identify any strong, pungent, or noxious odors.

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Pools of Liquid

During the site reconnaissance, Rincon did not identify any pools of liquid including standing surface water. In addition, no sumps containing liquids likely to be hazardous substances or petroleum products were observed.

Indications of Polychlorinated Biphenyls (PCBs)

During the site reconnaissance, Rincon did not observe transformers or other indications of PCBs at the subject property or adjacent to the subject property.

Other Conditions of Concern

During the site reconnaissance Rincon did not note any of the following:

- stains or corrosion
- pits, ponds, and lagoons
- stained soil or stained pavement
- stressed vegetation
- solid waste/debris
- waste water
- wells

EVALUATION

FINDINGS

Known or suspect environmental conditions associated with the subject property include the following:

- Adjacent automotive repair facility and historical gasoline stations

OPINIONS

A. ***Adjacent automotive repair facility and historical gasoline stations*** – A review of historical documents indicates the following adjacent automotive repair facilities and gasoline stations:

- 9019 Long Beach Boulevard: This property is located adjacent to the south of the subject property. A review of historical documents indicates automotive greasing and "gas & oil" facility in 1950 and automotive repair from 1970 through the present day.
- 8934 Long Beach Boulevard: This property is located adjacent to the northeast of the subject property, following the intersection of Willow Place and Long Beach Boulevard. A review of historical documents indicates the site was developed with a gasoline service station from 1928 through 1947.
- 9000 Long Beach Boulevard: This property is located adjacent to the east of the subject property, following Long Beach Boulevard. A review of historical documents indicates the site was developed with a gasoline service station from 1950 through 1970.

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Although no known documented releases associated with these sites were identified, if an undocumented release has occurred, there is the potential for contamination (if any) to be migrating beneath the subject property. Therefore, the adjacent automotive repair facility and historical gasoline stations are considered Potential Recognized Environmental Conditions.

CONCLUSIONS AND RECOMMENDATIONS

Rincon has performed a Phase I ESA in general conformance with the scope and limitations of ASTM E 1527-13 for the property located at 9001 and 9015 Long Beach Boulevard in South Gate, California. This assessment has revealed evidence of the following Potential Recognized Environmental Conditions in connection with adjacent properties as follows:

Potential Recognized Environmental Conditions

1. Adjacent automotive repair and historical gasoline stations

To evaluate the potential subject property impact associated with the adjacent automotive repair and historical gasoline stations, a soil vapor survey at the subject property is recommended.

DEVIATIONS

The following deviations from ASTM E 1527-13 Practice were encountered during the completion of this Phase I ESA:

- A completed "User Interview" Questionnaire has not been returned as of the date of this report.

REFERENCES

The following published reference materials were used in preparation of this Phase I ESA:

Aerial Photographs: Photos provided by Environmental Data Resources (EDR).

City Directory Listings: Listings provided by EDR.

Environmental Database: EDR report dated November 14, 2017.

Fire Insurance Maps: Maps provided by EDR.

Geology: California Division of Mines and Geology, Geologic Map of California, Long Beach Sheet, 1962.

Groundwater: Regional Water Quality Control Board (RWQCB) online database (GeoTracker).

Historical Topographic Maps: Maps provided by EDR.

Oil and Gas Records: State of California, Division of Oil, Gas and Geothermal Resources website: http://www.consrv.ca.gov/DOG/index.htm.

Pipelines: National Pipeline Mapping System (NMPS) Public Map Viewer, https://www.npms.phmsa.dot.gov/PublicViewer/.

Topography: USGS topographic map (South Gate Quadrangle, 2012).

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SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The qualified environmental professionals that are responsible for preparing the report include Sarah A. Larese and Walt Hamann. Their qualifications are summarized in the following section.

"We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. We have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Signature	Date
Walt Hamann, PG, CEG, CHG	Vice President
Name	Title

Signature	Date
Sarah A. Larese	Senior Environmental Scientist
Name	Title

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QUALIFICATIONS OF ENVIRONMENTAL CONSULTANTS

The environmental consultants responsible for conducting this Phase I ESA and preparing the report include Sarah A. Larese and Walt Hamann. Their qualifications are summarized below.

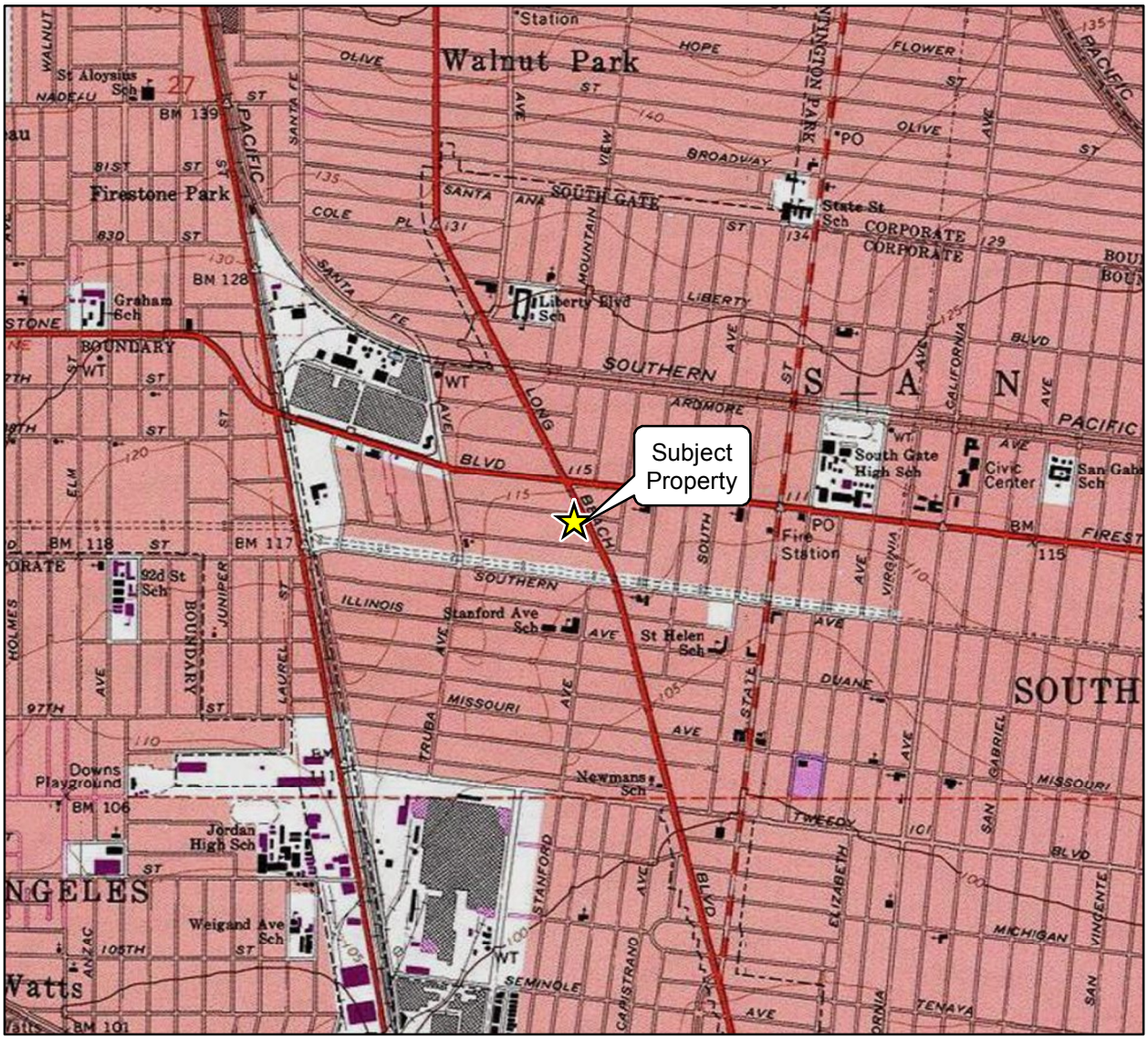
Environmental Professional Qualifications	X2.1.1 (2) (i) - Professional Engineer or Professional Geologist License or Registration, and 3 years of full-time relevant experience	X2.1.1 (2) (ii) - Licensed or certified by the Federal Government, State, Tribe, or U.S. Territory to perform environmental inquiries	X2.1.1 (2) (iii) – Baccalaureate or Higher Degree from and accredited institution of higher education in a discipline of engineering or science and the equivalent of 5 years of full-time relevant experience	X2.1.1 (2) (iii) – Equivalent of 10 years of full-time relevant experience
Walt Hamann	PG, CHG, CEG		MS Geology	30 years
Sarah A. Larese			BA Environmental Studies	16 years
Ariel Diaz			MS Soil Science	3 years

Walt Hamann, PG, CEG, CHG, is a Principal and Senior Geologist with Rincon Consultants. He holds a Bachelor of Arts degree in geology from the University of California, Santa Barbara and a Master of Science degree in geology from the University of California, Los Angeles. He has over 30 years of experience conducting assessment and remediation projects and has prepared or overseen the preparation of hundreds of Phase I and Phase II Environmental Site Assessments throughout California. Mr. Hamann is a Professional Geologist (#4742), Certified Engineering Geologist (#1635), and Certified Hydrogeologist (#208) with the State of California.

Sarah A. Larese is a Senior Environmental Scientist with Rincon Consultants. She holds a Bachelor of Science degree in environmental studies from the University of California, Santa Barbara, California. Ms. Larese has experience in development, implementation and project management of environmental assessment and remediation projects, especially relating to underground storage tanks. Ms. Larese's responsibilities at Rincon include implementation of Phase I and II Environmental Site Assessments as well as conducting site remediation field activities and preparation of environmental reports. She has 16 years of experience conducting research, assessment and remediation projects.

Ariel Diaz is an Associate Environmental Scientist with Rincon Consultants. She holds a Bachelor of Science degree in Environmental Management and Protection with a minor in Geographic Information Systems and a Master of Science degree in Agriculture with a specialization in Soil Science from California Polytechnic State University, San Luis Obispo. Ms. **Diaz**'s responsibility at Rincon includes the preparation of Phase I Environmental Site Assessment reports for a variety of commercial, rural, and industrial properties. She also has experience conducting Phase II projects including soil and water monitoring and sampling.

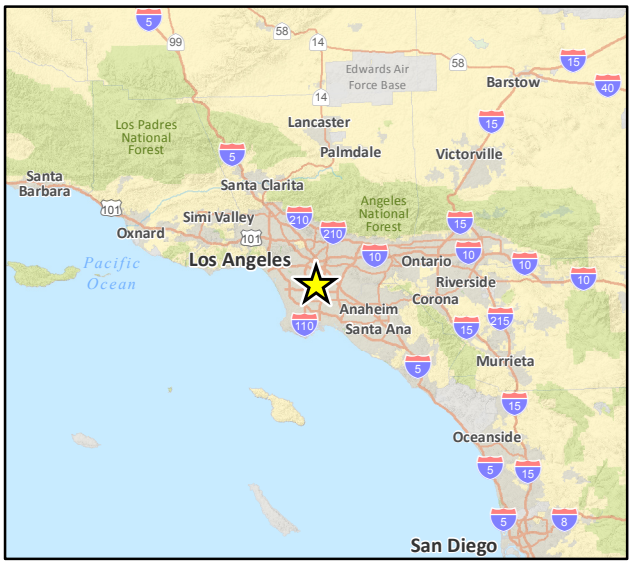
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Imagery provided by National Geographic Society, ESRI and its licensors © 2017. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

0 1,000 2,000
Scale in Feet

N



Vicinity Map

Figure 1



Imagery provided by Google and its licensors © 2017.

Site Map

Figure 2



Imagery provided by Google and its licensors © 2017.

Adjacent Land Use Map

Figure 3



Photograph 1. View of the subject property, facing south.



Photograph 2. View of the subject property, facing west.



Photograph 3. View of Willow Place followed by the northern adjacent motel (8935 Long Beach Boulevard), facing north.



Photograph 4. View of Long Beach Boulevard followed by the eastern adjacent motel (9010 Long Beach Boulevard), facing north.



Photograph 5. View of the southern adjacent automotive repair shop (9019 Long Beach Boulevard), facing north.



Photograph 6. View of the western adjacent residences, facing west.

Figure 4



Phase II Environmental Site Assessment

9001, 9015 and 9019 Long Beach Boulevard, South Gate, California

prepared for
City of South Gate
8650 California Avenue
South Gate, CA 90280

prepared by
Rincon Consultants, Inc.

June 21, 2019

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June 21, 2019
Project 18-05744

Alex Ostrowski
RSG
17872 Gillette Avenue, Suite 350
Irvine, California 92614
Via email: aostrowski@webrsg.com

Subject: **Phase II Environmental Site Assessment Report**
9001, 9015 & 9019 Long Beach Boulevard
South Gate, California 90280

Dear Ms. Ostrowski:

This report presents the findings of a Phase II Environmental Site Assessment (ESA) completed by Rincon Consultants, Inc. for the subject properties referenced above. The Phase II ESA was performed for the City of South Gate by Rincon Consultants, Inc. The work was conducted based on our Draft Phase I ESA, and our Phase II ESA proposal dated March 23, 2019. This Phase II ESA includes the results of soil matrix and soil vapor sampling conducted at the project site.

Thank you for selecting Rincon for this project. If you have any questions, or if we can be of any future assistance, please contact us.

Sincerely,
RINCON CONSULTANTS, INC.

Devin DiNapoli
Environmental Scientist

A. Edward Morelan, PG, CEG
Principal

Table of Contents

Executive Summary 1

Introduction 3
Scope of Work 3

Sampling Methodology 4
Soil Matrix Sampling 4
Soil Vapor Sampling 4

Laboratory Analysis 5

Soil Matrix Sampling Results 5
9019 Long Beach Boulevard 5

Soil Vapor Sampling Results 6
9001 and 9015 Long Beach Boulevard 6
9019 Long Beach Boulevard 6

Conclusions & Recommendations 6

Limitations 7

References 7

Figures

Figure 1 Vicinity Map
Figure 2 Sample Location Map
Figure 3 0.5-1 feet bgs Lead Concentrations Map

Tables

Table 1 Soil Matrix Analytical Summary – Metals
Table 2 Soil Matrix Analytical Summary – TPH
Table 3 Soil Vapor Analytical Summary – VOCs

Appendices

Appendix A Soil Boring Logs
Appendix B Soil Matrix Laboratory Report
Appendix C Soil Vapor Laboratory Report

Executive Summary

This report presents the results of a Phase II Environmental Site Assessment (ESA) for the subject property located at 9001, 9015, and 9019 Long Beach Boulevard, South Gate, California (Figure 1, Vicinity Map). The 9001 and 9015 Long Beach Boulevard sites are currently vacant lots that are to be developed with multi-family housing. The 9019 Long Beach Boulevard site is being considered for purchase by the City and was also investigated during this Phase II ESA. The Phase II ESA was performed by Rincon Consultants, Inc. (Rincon) for the City of South Gate. The work was conducted based on the findings of a Phase 1 ESA conducted at 9001 and 9015 Long Beach Boulevard, South Gate, California. The Phase I ESA report identified the following Potential Recognized Environmental Conditions in connection with adjacent properties as follows:

Potential Recognized Environmental Conditions

Adjacent automotive repair facility and historical gasoline stations – A review of historical documents identified the following adjacent automotive repair facilities and gasoline stations:

a. 9019 Long Beach Boulevard: This property was identified as located adjacent to the south of the subject property in the Phase I ESA, and was included in the sampling effort for this Phase II ESA. A review of historical documents indicates an automotive greasing and "gas & oil" facility in 1950, and an automotive repair from 1970 through the present day.
b. 8934 Long Beach Boulevard: This property is located adjacent to the northeast of the subject property, following the intersection of Willow Place and Long Beach Boulevard. A review of historical documents indicates the site was developed with a gasoline service station from 1928 through 1947.
c. 9000 Long Beach Boulevard: This property is located adjacent to the east of the subject property, following Long Beach Boulevard. A review of historical documents indicates the site was developed with a gasoline service station from 1950 through 1970.

Although no known documented releases associated with these sites were identified, if an undocumented release had occurred, there is the potential for contamination (if any) to be migrating beneath the subject property. Therefore, the adjacent automotive repair facility and historical gasoline stations are considered Potential Recognized Environmental Conditions.

9001 and 9015 Long Beach Boulevard

On February 20, 2019, Rincon mobilized to the project site to advance a total of five borings, SV1-SV5, to five feet below ground surface (bgs) on the parcels at 9001 and 9015 Long Beach Boulevard. Temporary soil vapor probes were installed in all five borings to a depth of five feet bgs. Soil vapor samples were collected and analyzed for volatile organic compounds (VOCs) by EPA method 8260. No VOCs were detected in any of the soil vapor samples collected; no additional assessment was recommended for the parcels at 9001 and 9015 Long Beach Boulevard.

9019 Long Beach Boulevard

On February 20, 2019, Rincon mobilized to the project site to advance a total of five borings, RB6-RB10, to a depth of five feet bgs. Soil matrix samples were collected at 0.5 and 5 feet bgs and

analyzed for total petroleum hydrocarbons (TPH) by EPA Method 8015, and CAM 17 Metals by EPA Method 6010B/7471A/7470A. Following the soil matrix sampling, temporary soil vapor probes SV6-SV10 were installed to a depth of five feet bgs. Soil vapor samples were analyzed for VOCs.

Based on the metals results of the soil-matrix sampling effort, Rincon completed eight additional soil borings at the site to the north and south of RB7 and RB9 on April 18, 2019. The borings were advanced to five feet bgs, and samples were collected at 1, 3 and 5 feet bgs. The samples from 1 and 3 feet bgs from select borings were analyzed for metals and TPH; the 5-foot samples were held pending the shallow analyses.

With the exception of arsenic, lead, and thallium none of the metals detected in the soil matrix samples analyzed exceeded their respective screening levels. Arsenic was detected at concentrations exceeding screening levels; however, the detected concentrations were within naturally occurring background concentrations in California soils.

Lead was detected in all the samples analyzed from the parcel at 9019 Long Beach Boulevard, at concentrations ranging from 1.34 milligrams per kilogram (mg/kg) to 1,600 mg/kg. Concentrations of lead detected in samples RB7-0.5, RB8-0.5, and RB9-0.5 were above the trigger level for performing soluble threshold limit concentration (STLC) tests. Two of the three STLC tests (RB7-0.5 and RB9-0.5) were above 5 milligrams per liter (mg/L), classifying the soil in those locations as California, non-RCRA hazardous waste. One sample, RB7-S2-1, had a detected lead concentration of 1,600 mg/kg, which classifies it as a California non-RCRA hazardous waste. The sample had a toxicity characteristic leaching procedure (TCLP) for lead of 0.801 mg/L; therefore, the sample is not considered RCRA hazardous waste.

Thallium was detected above the residential ESL in 8 of the 18 soil matrix samples analyzed.

TPH as gasoline (TPHg) was not detected in any of the soil matrix samples analyzed from the parcel at 9019 Long Beach Boulevard. TPH as diesel (TPHd) was detected in two samples at 3.03 mg/kg and 6 mg/kg, below screening levels. TPH as oil (TPHo) was detected in 8 samples analyzed, from 5.53 mg/kg to 10,000 mg/kg. One concentration of TPHo (RB9-0.5) was detected at a concentration equaling the Los Angeles Regional Water Quality Control Board (LARWQCB) soil screening level (SSL) for soil between 20 and 150 feet above groundwater.

No VOCs were detected in any of the soil vapor samples analyzed. Therefore, no further action is recommended for soil vapor at the subject property.

While lead detected in the soil matrix samples appears to be elevated in the shallow samples, the elevated lead has not been delineated laterally. Therefore, we recommend additional step-out borings on the parcel at 9019 Long Beach Boulevard to delineate the horizontal impact of elevated lead in shallow soils. Soils at three of these locations would be classified as non-RCRA hazardous waste for the purposes of disposal.

TPHo was elevated in one sample, RB9-0.5. However, this area of elevated TPHo appears to have been delineated. If the site is to be redeveloped, we recommend excavating the soil in the vicinity of this boring and disposing of it offsite.

Detections of thallium in 8 of the 18 samples analyzed were present at levels exceeding the Residential ESL on the parcel at 9019 Long Beach Boulevard; because such elevated levels can often be an artifact of the EPA Method 6010 analytical methodology, we recommend that future metals testing be performed to report thallium levels using EPA Method 6020.

Introduction

This report presents the results of a Phase II Environmental Site Assessment (ESA) for the subject property located at 9001, 9015 and 9019 Long Beach Boulevard, South Gate, California (Figure 1, Vicinity Map). The Phase II ESA was performed by Rincon Consultants, Inc. (Rincon) for Joe Perez, City of South Gate.

The work was conducted based on the findings of a Draft Phase 1 Environmental Site Assessment for the property prepared by Rincon, which identified one potential recognized environmental condition (REC) in connection with the project site:

Potential Recognized Environmental Condition

Adjacent automotive repair facility and historical gasoline stations – A review of historical documents identified the following adjacent automotive repair facilities and gasoline stations:

a. 9019 Long Beach Boulevard: This property was identified as located adjacent to the south of the subject property in the Phase I ESA, and was included in the sampling effort for this Phase II ESA. A review of historical documents indicates an automotive greasing and "gas & oil" facility in 1950, and an automotive repair from 1970 through the present day.
b. 8934 Long Beach Boulevard: This property is located adjacent to the northeast of the subject property, following the intersection of Willow Place and Long Beach Boulevard. A review of historical documents indicates the site was developed with a gasoline service station from 1928 through 1947.
c. 9000 Long Beach Boulevard: This property is located adjacent to the east of the subject property, following Long Beach Boulevard. A review of historical documents indicates the site was developed with a gasoline service station from 1950 through 1970.

Although no known documented releases associated with these sites were identified, if an undocumented release had occurred, there is the potential for contamination (if any) to be migrating beneath the subject property. Therefore, the adjacent automotive repair facility and historical gasoline stations are considered Potential Recognized Environmental Conditions. The purpose of the Phase II ESA is to determine if the potential REC noted above has impacted the subject property.

Scope of Work

The following tasks were performed as part of this Phase II ESA:

- **Health and Safety Plan**. A Health and Safety Plan was developed for the Phase II ESA sampling personnel. Rincon's Health and Safety Plan outlines the measures to be followed to minimize exposure to onsite workers and the public. This document was prepared prior to the commencement of field work. This document is required by Federal law.

- **Utility Notification.** Prior to the commencement of drilling activities, the project site was pre-marked and Underground Service Alert (USA) utility marking service was contacted to

mark areas where underground public utilities might be located in the drilling area. California law requires this notification.

- **Soil and Soil Vapor Sampling.** Soil matrix sampling and soil vapor sampling were conducted at the project site as described in this report.

- **Reporting.** Preparation of this report documenting our findings.

Sampling Methodology

Soil Matrix Sampling

On February 20, 2019, Rincon mobilized to the project site to advance a total of 10 borings to a depth of 5 feet bgs using a Geoprobe rig. The borings were completed by Choice Drilling. In the five borings (RB6-RB10) advanced at 9019 Long Beach Boulevard, soil matrix samples were collected at 0.5 and 5 feet bgs and analyzed for total petroleum hydrocarbons (TPH) by EPA Method 8015, and CAM 17 Metals by EPA Method 6010B/7471A/7470A.

The sampling rig hydraulically drives a rod into the ground. When the target soil sampling depth is reached, a soil sampler is attached to the end of the rod. The soil sampler consists of a 1.5-inch diameter tube equipped with acetate liners. By advancing this sampler into the soil, soil is forced into the opening of the sampling tube and a sample is obtained. Once the sampler is filled, it is retrieved and the sample liner is removed. A portion of the liner is then capped with plastic end caps, labeled, and transferred to the analytical laboratory. Soil from within the liner is used to log the borehole.

The samples were transported under chain-of-custody documentation by courier to Enthalpy Analytical, a State-certified analytical laboratory in Orange, California. All soil sampling was performed under the oversight of a California Professional Geologist.

Based on the metals results of the soil-matrix sampling effort, Rincon completed eight additional soil borings at the site north and south of RB7 and RB9 on April 18, 2019. Using a Geoprobe, borings were advanced to five feet bgs, and samples were collected at 1, 3 and 5 feet bgs. The samples from 1 and 3 feet bgs from select borings were analyzed for metals and TPH; the 5-foot samples were held pending the shallow analyses.

Soil Vapor Sampling

During the first sampling event on February 20th, soil vapor probes were installed at 5 feet bgs in all ten borings (SV1-SV10). Once the soil boring was drilled to depth, a measured length of quarter inch diameter Nylaflow tubing was inserted into the open borehole. At least six inches of Monterey number 3 sand was used as a filter pack at the probe screen interval. At least one foot of dry granular bentonite was added above the sand layer, followed by hydrated bentonite up to the surface.

Under the direction of Rincon, Optimal Technology collected soil vapor samples from the soil vapor probes and analyzed the samples using a mobile laboratory. At each probe location, an electric

vacuum pump was attached to the probe and purged prior to collection of the soil vapor sample. The soil vapor samples were collected in Hamilton gas-tight syringes and immediately injected into the mobile laboratory's gas chromatograph. The soil vapor samples were analyzed for VOCs by EPA Method 8260.

The soil matrix and soil vapor sampling locations are depicted in Figure 2, Sample Location Map.

Laboratory Analysis

Soil matrix samples collected from the project site were analyzed for the following:

- Total lead by EPA Method 6010B
- TPH by EPA Method 8015M

Soil vapor samples were analyzed for VOCs by EPA Method 8260.

Soil Matrix Sampling Results

A copy of the soil matrix analytical report is included in Appendix B. Detected concentrations of constituents in soil matrix were compared to the San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (SFBRWQCB ESLs). Detected concentrations of metals were also compared to the *Background Concentrations of Trace and Major Elements in California Soils* (Kearney, 1996). Detected concentrations of TPH were compared to the Los Angeles Regional Water Quality Control Board's Soil Screening Levels (LARWQCB SSLs).

9019 Long Beach Boulevard

Metals: Metals analytical results are summarized in Table 1. With the exception of arsenic, lead, and thallium, none of the metals detected exceeded their respective ESLs. Arsenic was detected at concentrations exceeding the residential and commercial/industrial ESL; however, the detected concentrations were within naturally occurring background concentrations in California soils.

Lead was detected in all the samples analyzed, as summarized in Table 1, at concentrations ranging from 1.34 mg/kg to 1,600 mg/kg.

Since a few of the detected concentrations of metal constituents exceeded 10 times the associated Soluble Threshold Limit Concentration (STLC), which is used for determining hazardous waste characterization in California under California Code of Regulations (CCR) Title 22, Section 66261.24, an STLC extraction (using the Waste Extraction Test (WET) method) was completed by the laboratory and the metal was analyzed in the solution. In addition, if: 1) the metal's Total Threshold Limit Concentration (TTLC) was exceeded; or 2) its concentration was greater than 20 times its associated Toxicity Characteristic Leaching Procedure (TCLP) limit (a testing methodology to determine if a solid waste is considered hazardous under the Resource Conservation and Recovery Act (RCRA)); or 3) WET results exceeded the STLC, a TCLP extraction was completed and the respective constituent(s) were analyzed in the solution.

Concentrations of lead detected in samples RB7-0.5, RB8-0.5, and RB9-0.5 were above the trigger level for performing STLC tests. Two of the three STLC tests (RB7-0.5 and RB9-0.5) were above 5 mg/L, classifying the soil in those locations as California, non-RCRA Hazardous waste. One sample, RB7-S2-1, had a detected lead concentration of 1,600 mg/kg, which classifies it as California hazardous waste. The sample had a TCLP for lead of 0.801 mg/L; therefore, the sample is not considered RCRA hazardous waste.

Thallium was detected in 8 of the 18 samples analyzed above the residential ESL.

TPH: TPH analytical results are summarized in Table 2. TPH as gasoline (TPHg) was not detected in any of the samples analyzed. TPH as diesel (TPHd) was detected in two samples at 3.03 mg/kg and 6 mg/kg, below screening levels. TPH as oil was detected in 8 samples analyzed, from 5.53 mg/kg to 10,000 mg/kg. One concentration of TPHo (RB9-0.5) was detected at the RWQCB SSL for soil between 20 and 150 feet above groundwater.

Soil Vapor Sampling Results

One soil vapor sample was collected from each probe (SV1-SV10) set at 5 feet bgs. The soil vapor samples were analyzed for VOCs using an onsite mobile laboratory. Results of the soil vapor analyses are shown in Table 3. A copy of the soil vapor analytical report is included in Appendix C.

9001 and 9015 Long Beach Boulevard

A total of five soil vapor samples were collected at this parcel, from SV1-SV5. No VOCs were detected in any of the soil vapor samples analyzed.

9019 Long Beach Boulevard

One duplicate sample was collected from SV10, for a total of 6 soil vapor samples from soil vapor probes SV6-SV10. No VOCs were detected in any of the soil vapor samples analyzed.

Conclusions & Recommendations

Soil Vapor – 9001, 9015 and 9019 Long Beach Boulevard

No VOCs were detected in any of the soil vapor samples analyzed. Therefore, we recommend no further action with respect to soil vapor at the subject property.

Soil Matrix – 9019 Long Beach Boulevard

Lead concentrations are elevated at levels above regulatory screening criteria in shallow soils in 5 of the 13 sampling locations at this property; soils at three of these locations would be classified as non-RCRA hazardous waste for the purposes of disposal. Additionally, the areas of elevated lead

have not been delineated laterally. We recommend additional step out borings on the parcel at 9019 Long Beach Boulevard to delineate the horizontal extent of elevated lead in shallow soils.

Detections of thallium in 8 of the 18 samples analyzed were present at levels exceeding the Residential ESL; because such elevated levels can often be an artifact of the EPA Method 6010 analytical methodology, we recommend that future metals testing be performed to report thallium levels using EPA Method 6020.

TPHo concentrations equaled the RWQCB SSL in one sample, RB9-0.5. However, this area of elevated TPHo appears to have been delineated. If the site is to be redeveloped, we recommend excavating the soil in the vicinity of this boring and disposing of it offsite.

Limitations

This report has been prepared for and is intended for the exclusive use of the City of South Gate. The contents of this report should not be relied upon by any other party without the written consent of Rincon Consultants, Inc.

This scope was not intended to completely establish the quantities and distribution of contaminants present at the project site or to determine the cost to remediate the project site. The concentrations of contaminants measured at any given location may not be representative of conditions at other locations. Further, conditions may change at any particular location as a function of time in response to natural conditions, chemical reactions and other events. Conclusions regarding the condition of the project site do not represent a warranty that all areas within the project site are similar to those sampled.

References

The following reference materials were used in the preparation of this Phase II ESA:

Previous Assessments

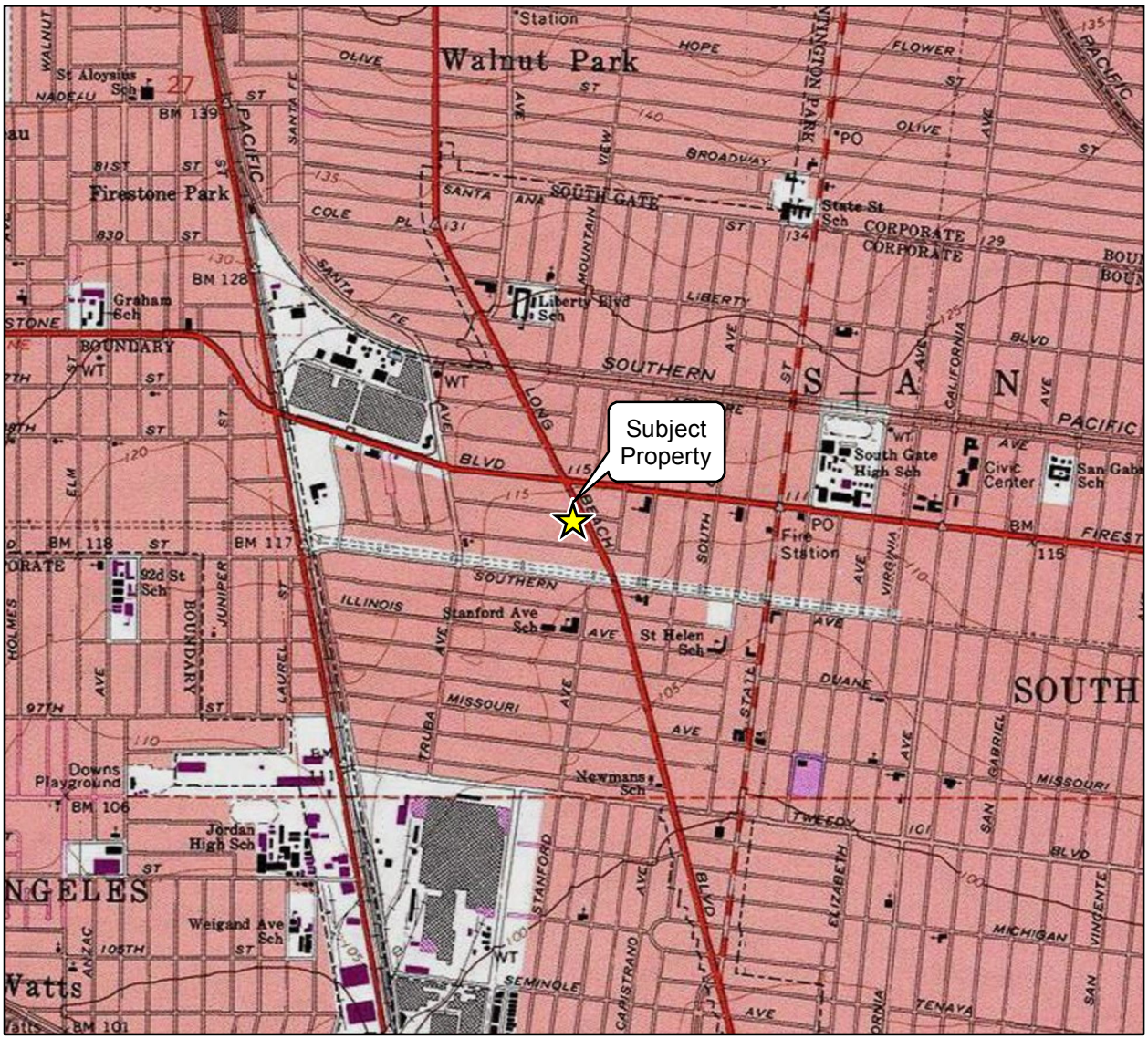
Priority I Environmental, *Phase I Environmental Site Assessment,* December 2017.

Screening Levels

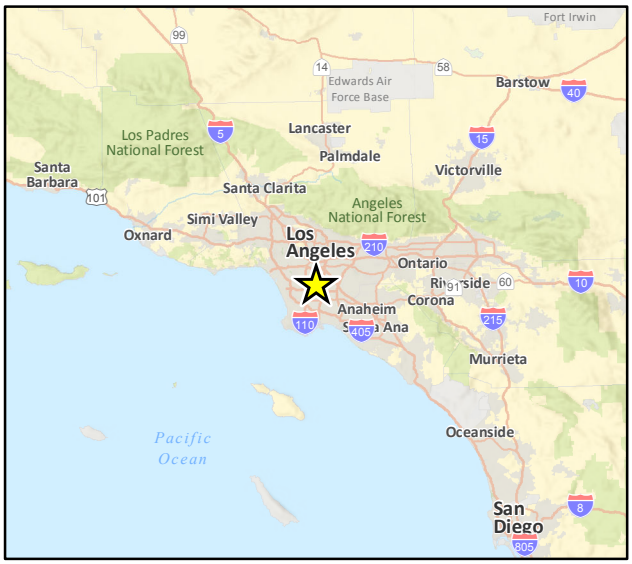
Kearney, Background Concentrations of Trace and Major Elements in California Soils, University of California, 1996.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (revised January 2019).

Los Angeles Regional Water Quality Control Board Soil Screening Levels, May 1996.

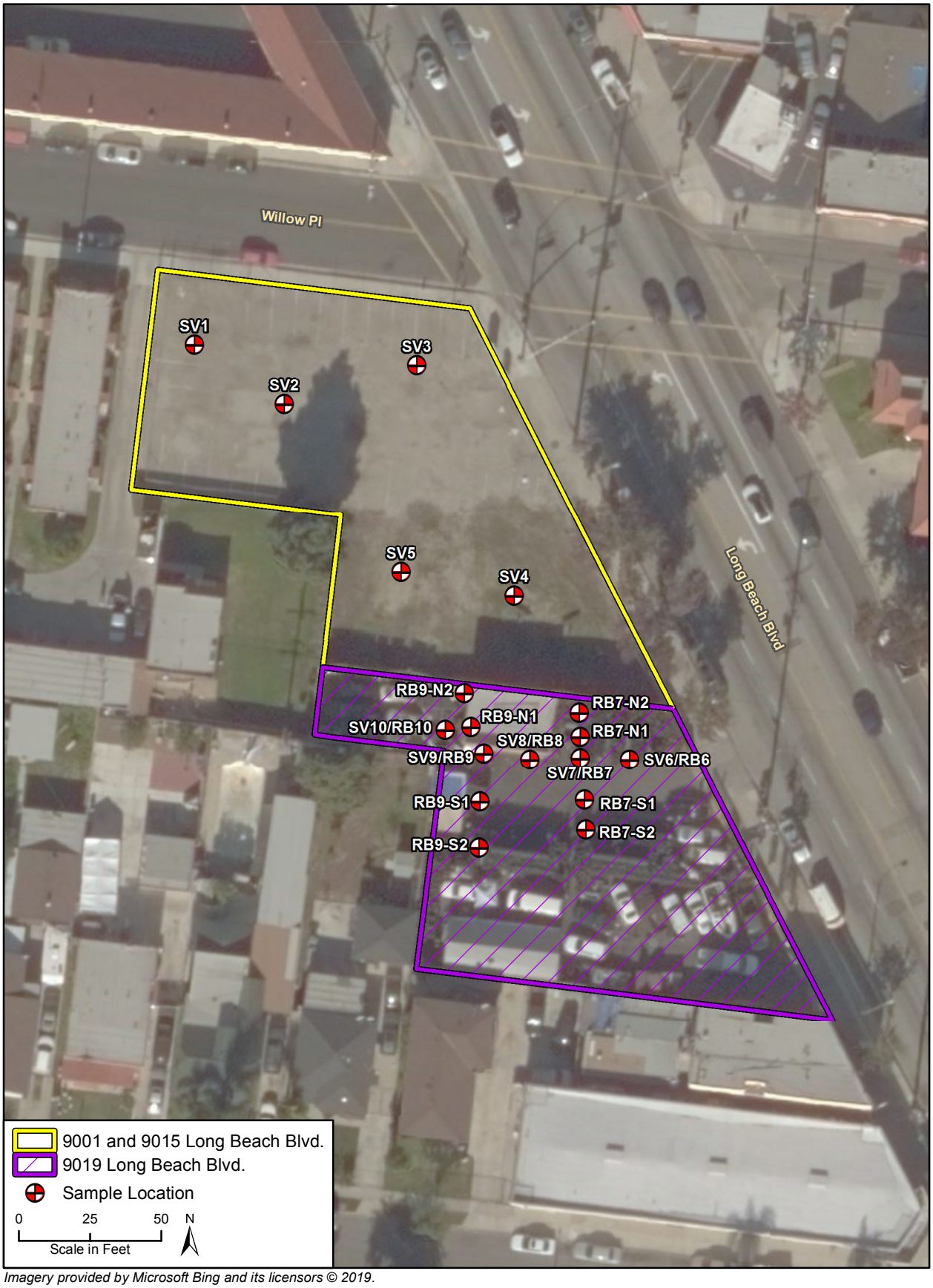


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Vicinity Map

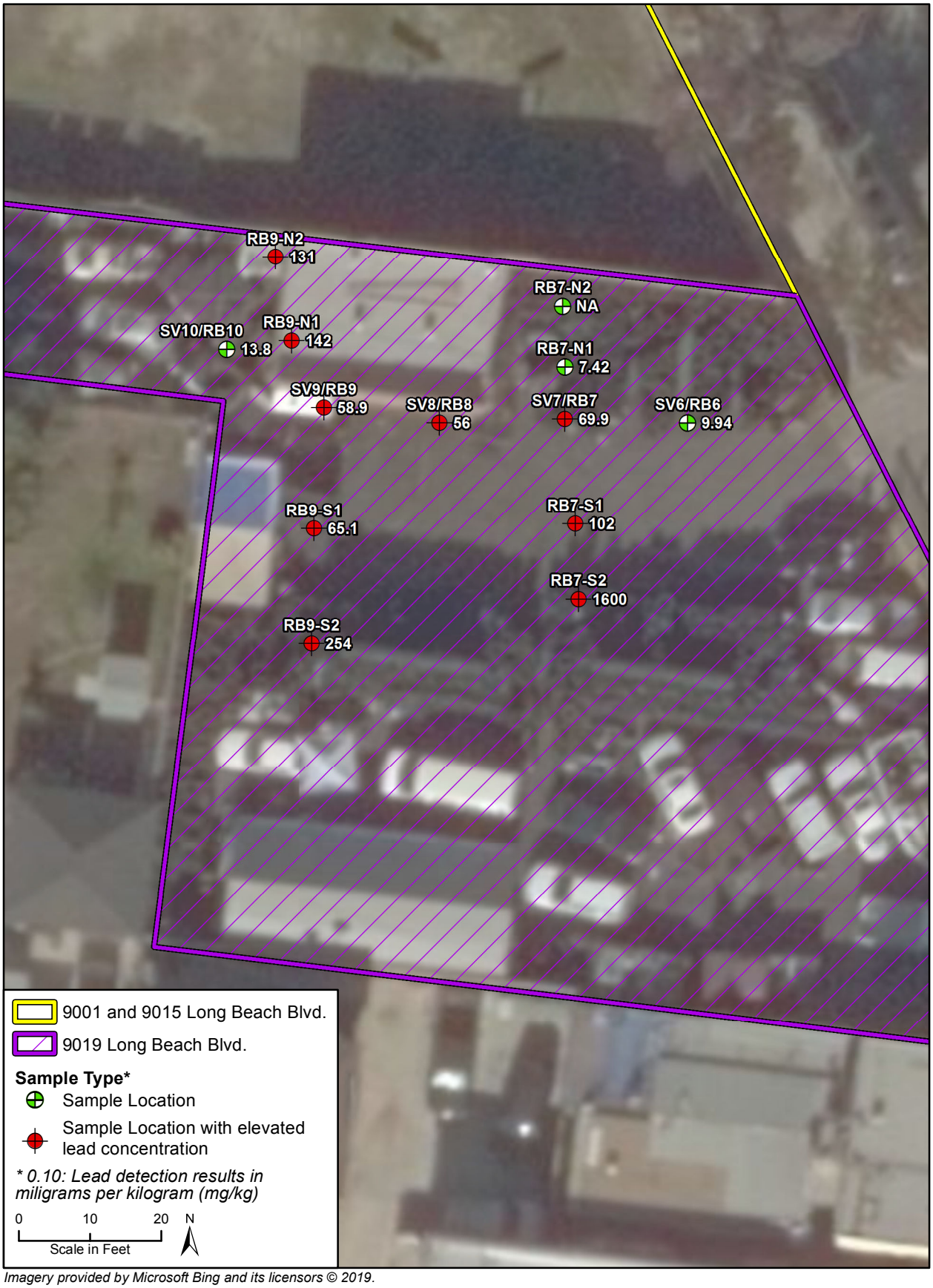
Figure 1



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Sample Location Map

Figure 2



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0.5-1 feet bgs Lead Concentrations Map

Figure 3

Table 1
Summary of Soil Matrix Analytical Results - Metals
9019 Long Beach Boulevard, South Gate, California

Boring	Sample Depth (feet below grade)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead			Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
											TTLC (mg/kg)	STLC (mg/L)	TCLP (mg/L)								
			Results in mg/kg																		
RB6	0.5	2/20/2019	ND<0.37	2.86	118	ND<0.17	0.75	16.6	11.9	53.5	9.94	--	--	ND<0.039	1.58	22.3	ND<0.72	ND<0.13	ND<0.42	36.9	84.8
	5	2/20/2019	ND<0.37	ND<0.36	107	ND<0.17	0.78	14.8	9.22	15	1.34	--	--	ND<0.039	ND<0.13	11.8	ND<0.72	ND<0.13	ND<0.42	36.8	47.8
RB7	0.5	2/20/2019	ND<0.37	ND<0.36	138	ND<0.17	3.66	21	10.7	60.1	69.9	6.06	--	ND<0.039	1.63	26.3	ND<0.72	ND<0.13	ND<0.42	45.1	168
	5	2/20/2019	ND<0.37	ND<0.36	163	ND<0.17	1.06	21.1	13.5	23.3	1.55	--	--	ND<0.039	ND<0.13	17.5	ND<0.72	ND<0.13	ND<0.42	52.4	70.1
RB7-N1	1	4/18/2019	ND<0.37	3.76	210	ND<0.17	0.73	24.7	15.3	27.4	7.42	--	--	ND<0.039	ND<0.13	16.8	ND<0.72	ND<0.13	7.04	49.8	75.6
	3	4/18/2019	ND<0.37	ND<0.36	71.2	ND<0.17	ND<0.21	12	8.06	9.37	2.87	--	--	ND<0.039	ND<0.13	7.38	ND<0.72	ND<0.13	4.29	32.1	34.6
RB7-S1	1	4/18/2019	ND<0.37	2.95	249	ND<0.17	0.92	25.4	13.9	40.6	102	--	--	ND<0.039	ND<0.13	17.3	ND<0.72	ND<0.13	5.81	52	162
	3	4/18/2019	ND<0.37	3.31	166	ND<0.17	0.72	23	14.4	26.5	5.38	--	--	ND<0.039	1.02	15.7	ND<0.72	ND<0.13	6.82	46.2	60.9
RB7-S2	1	4/18/2019	--	--	--	--	--	--	--	--	1,600	--	0.801	--	--	--	--	--	--	--	--
	3	4/18/2019	--	--	--	--	--	--	--	--	4.49	--	--	--	--	--	--	--	--	--	--
RB8	0.5	2/20/2019	ND<0.37	ND<0.36	152	ND<0.17	0.98	18.3	10.9	26.4	56	2.85		ND<0.039	ND<0.13	16.6	ND<0.72	ND<0.13	ND<0.42	44.7	114
	5	2/20/2019	ND<0.37	ND<0.36	115	ND<0.17	0.66	14.4	8.7	20.8	10.9	--	--	0.16	1.25	16.3	ND<0.72	ND<0.13	ND<0.42	36	68.7
RB9	0.5	2/20/2019	ND<0.37	ND<0.36	93.3	ND<0.17	2.29	15.3	6.02	29.2	58.9	7.07	--	ND<0.039	2.18	16.2	ND<0.72	ND<0.13	ND<0.42	33	76.9
	5	2/20/2019	ND<0.37	ND<0.36	165	ND<0.17	0.99	19.7	12	23.1	3.87	--	--	ND<0.039	1.37	15.6	ND<0.72	ND<0.13	ND<0.42	48.2	63
RB9-N1	1	4/18/2019	ND<0.37	11.1	165	ND<0.17	0.93	21.4	11.8	29.2	142	--	--	ND<0.039	ND<0.13	14.7	ND<0.72	ND<0.13	5.32	44.7	81.8
	3	4/18/2019	ND<0.37	6.63	215	ND<0.17	0.91	25.9	18	34.1	7.73	--	--	ND<0.039	3.33	19	ND<0.72	ND<0.13	6.39	55.2	69.7
RB9-N2	1	4/18/2019	--	--	--	--	--	--	--	--	131	--	--	--	--	--	--	--	--	--	--
	3	4/18/2019	--	--	--	--	--	--	--	--	5.29	--	--	--	--	--	--	--	--	--	--
RB9-S1	1	4/18/2019	ND<0.37	2.9	165	ND<0.17	0.63	19.2	11.3	24.6	65.1	--	--	ND<0.039	ND<0.13	13.4	ND<0.72	ND<0.13	4.78	44.3	87.2
	3	4/18/2019	ND<0.37	3.08	195	ND<0.17	0.65	20.4	12.1	24.4	10.7	--	--	ND<0.039	ND<0.13	14.4	ND<0.72	ND<0.13	5.5	44.3	60
RB9-S2	1	4/18/2019	--	--	--	--	--	--	--	--	254	--	--	--	--	--	--	--	--	--	--
	3	4/18/2019	--	--	--	--	--	--	--	--	7.49	--	--	--	--	--	--	--	--	--	--
RB10	0.5	2/20/2019	ND<0.37	ND<0.36	142	ND<0.17	0.99	20.6	11.5	26.6	13.8	--	--	ND<0.039	ND<0.13	16.3	ND<0.72	ND<0.13	ND<0.42	47.4	84
	5	2/20/2019	ND<0.37	ND<0.36	185	ND<0.17	0.99	20.7	12.1	24.4	2.81	--	--	ND<0.039	ND<0.13	16.6	ND<0.72	ND<0.13	ND<0.42	45.5	66.7
Trigger Level for performing CA-WET (10 x STLC)			150	50	1,000	7.5	10	50	800	250	50	NA	NA	2.0	3,500	200	10	50	70	240	2,500
Trigger Level for performing TCLP (20 x TCLP)			NA	100	2,000	NE	20	100	NE	NE	100	NA	NA	4.0	NE	NE	20	100	NE	NE	NE
Background Concentration			0.15 - 1.95	0.6 - 11	133 - 1,400	0.25 - 2.70	0.05 - 1.70	23 - 1,579	2.7 - 46.9	9.1 - 96.4	12.4 - 97.1	NA	NA	0.05 - 0.90	0.1 - 9.6	9.0 - 509	0.015 - 0.430	0.10 - 8.3	0.17- 1.1	39 - 288	88 - 236
ESL (Residential)			11	0.067	15,000	16	78	NE	23	3,100	80	NA	NA	13	390	820	390	390	0.78	390	23,000
ESL (Commercial)			160	3.60	220,000	230	1100	NE	350	47,000	320	NA	NA	190	5800	11,000	5,800	5,800	12	5,800	350,000
Dispose Offsite as Cal-Haz Waste	STLC (mg/L)		15	5	100	0.75	1	5	80	25	5	5.0	NA	0.2	350	20	1	5	7	24	250
	TTLC		500	500	10,000	75	100	2,500	2,500	8,000	1,000	NA	NA	20	3,500	2,000	100	500	700	2,400	5,000
Dispose Offsite as RCRA-Haz Waste	TCLP (mg/L)		NE	5	100	NE	1	5	NE	NE	5	NA	5.0	0.2	NE	NE	1	5	NE	NE	NE

Definitions:
bold - Constituent detected above laboratory reporting limit
shaded - Constituent detected above a screening level
< - Constituent not detected above associated laboratory reporting limit
Background Concentration - Kearney, Background Concentrations of Trace and Major Elements in California Soils, University of California, 1996
ESL - San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (revised January 2019); Summary of Soil ESLs table for human health direct exposures.
Metals - As defined in California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24 (seventeen metals listed in Table II); known as Title 22 CAM 17
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
NE - Screening level not established
NA- Not Applicable
STLC - Soluble Threshold Limit Concentrations (California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24) (Laboratory Preparation Method T22.11.5 All)
TCLP - Toxicity Characteristic Leaching Procedure (Code of Federal Regulations, Title 40, Chapter I, Subchapter I, Part 261, Section 261.24) (Laboratory Preparation Method EPA 1311)
TTLC - Total Threshold Limit Concentration (California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24)

Table 2
Summary of Soil Matrix Analytical Results - TPH
9019 Long Beach Boulevard, South Gate, California

Boring	Sample Depth (feet below grade)	Sample Date	TPH gasoline (C6 to C12)	TPH diesel (C13 to C22)	TPH oil (C23 to C44)
			Results in mg/kg		
RB6	0.5	2/20/2019	ND<250	ND<250	**420**
	5	2/20/2019	ND<10	ND<10	ND<10
RB7	0.5	2/20/2019	ND<50	ND<50	**110**
	5	2/20/2019	ND<10	ND<10	ND<10
RB7-N1	1	4/18/2019	ND<0.239	ND<0.022	ND<2.1
	3	4/18/2019	ND<0.239	ND<0.022	ND<2.1
RB7-S1	1	4/18/2019	ND<0.239	ND<0.55	ND<52.5
	3	4/18/2019	ND<0.239	ND<0.022	ND<2.1
RB8	0.5	2/20/2019	ND<100	ND<100	**160**
	5	2/20/2019	ND<200	ND<200	**350**
RB9	0.5	2/20/2019	ND<500	ND<500	**10,000**
	5	2/20/2019	ND<10	ND<10	ND<10
RB9-N1	1	4/18/2019	ND<0.239	ND<0.55	ND<52.5
	3	4/18/2019	ND<0.239	**3.03**	ND<2.1
RB9-S1	1	4/18/2019	ND<0.239	ND<0.22	ND<21
	3	4/18/2019	ND<0.239	**6**	**5.53**
RB10	0.5	2/20/2019	ND<100	ND<100	**320**
	5	2/20/2019	ND<10	ND<10	**10**
ESL (Residential)			430	260	12,000
ESL (Commercial/Industrial)			2,000	1,200	180,000
LA RWQCB SSL			500	1,000	10,000

Definitions:
bold - Constituent detected above laboratory reporting limit
shaded - Constituent detected above a screening level
TPH - Total Petroleum Hydrocarbons
mg/kg - milligrams per kilogram
ND - not detected above the method detection limit

LA RWQCB SSL - Los Angeles RWQCB Maximum Soil Screening Levels (SSLs) for TPH and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) Above Drinking Water Aquifers, for soil between 20 and 150 feet above groundwater (Table 4-1), May 1996

ESL - San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (revised January 2019), Summary of Soil ESLs table for human health direct exposures
TPH analyzed by EPA Method 8015

Table 3
Summary of Soil Vapor Analytical Results - VOCs
9001, 9015 and 9019 Long Beach Boulevard, South Gate, California

Boring	Sample Depth (feet below grade)	VOCs
		Results in µg/L
SV1	5	ND
SV2	5	ND
SV3	5	ND
SV4	5	ND
SV5	5	ND
SV6	5	ND
SV7	5	ND
SV8	5	ND
SV9	5	ND
SV10	5	ND
	5 (dup)	ND

Definitions:
VOCs-Volatile Organic Compounds
µg/L - micrograms per liter
ND - not detected above the method detection limit
VOCs analyzed by EPA Method 8260

Appendix A

Soil Boring Logs

Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
www.rinconconsultants.com

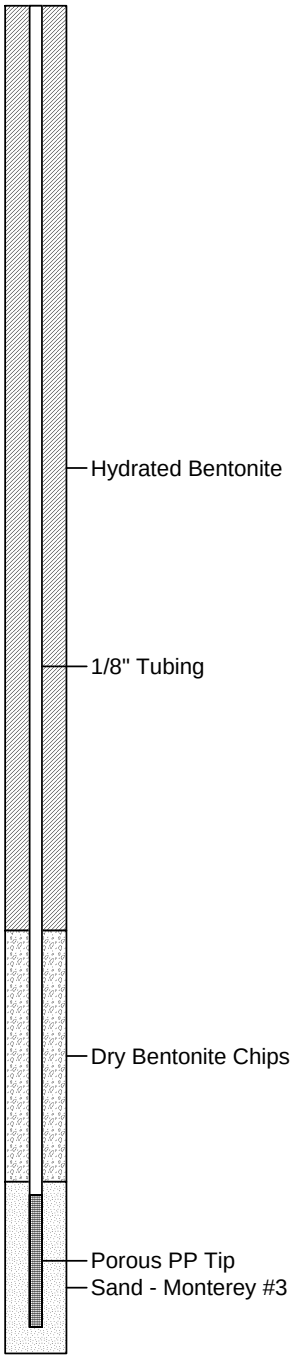
LOG OF BORING RB6

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0					
				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2		SM			
3					
4					0.0
5					

SV6-5



06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB6.bor

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LOG OF BORING RB7

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

SV7-5

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0					
	■			SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2		SM			
3					
4					
	■				0.0
5					

Hydrated Bentonite
1/8" Tubing
Dry Bentonite Chips
Porous PP Tip
Sand - Monterey #3

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB7.bor

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LOG OF BORING RB7-N1

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
3		SM			0.0
4					
5					0.0

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB7-N1.bor

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LOG OF BORING RB7-N2

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
3		SM			0.0
4					
5					0.0

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB7-N2.bor

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LOG OF BORING RB7-S1

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
3		SM			0.0
4					
5					0.0

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB7-S1.bor

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LOG OF BORING RB7-S2

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
3		SM			0.0
4					
5					0.0

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB7-S2.bor

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LOG OF BORING RB8

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

SV8-5

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2		SM			
3					
4					0.0
5					

Hydrated Bentonite
1/8" Tubing
Dry Bentonite Chips
Porous PP Tip
Sand - Monterey #3

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB8.bor

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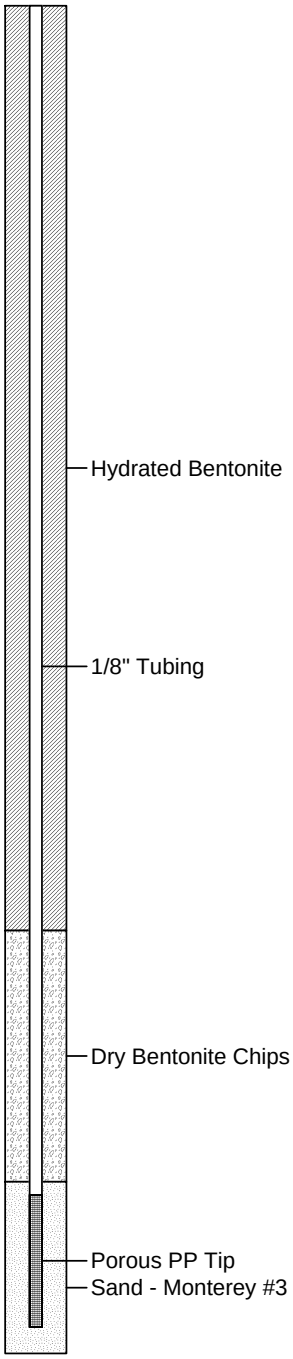
LOG OF BORING RB9

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed : February 20, 2019
Method : Geoprobe
Drilled By : Choice Drilling
Logged By : Devin Cheyne
Location : 9019 Long Beach Boulevard

SV9-5

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0					
				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
		SM			
3					
4					
					0.0
5					



06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB9.bor

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LOG OF BORING RB9-N1

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
		SM			0.0
3					
4					
					0.0
5					

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB9-N1.bor

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LOG OF BORING RB9-N2

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
3		SM			0.0
4					
5					0.0

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB9-N2.bor

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LOG OF BORING RB9-S1

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
		SM			0.0
3					
4					
					0.0
5					

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB9-S1.bor

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LOG OF BORING RB9-S2

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed	: February 20, 2019
Method	: Geoprobe
Drilled By	: Choice Drilling
Logged By	: Devin Cheyne
Location	: 9019 Long Beach Boulevard

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
1					
2					
		SM			0.0
3					
4					
					0.0
5					

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB9-S2.bor

Rincon Consultants, Inc.
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LOG OF BORING RB10

9001, 9015 and 9019 Long Beach Boulevard
South Gate, California
Project # 17-03990

Date Completed : February 20, 2019
Method : Geoprobe
Drilled By : Choice Drilling
Logged By : Devin Cheyne
Location : 9019 Long Beach Boulevard

SV10-5

Depth in Feet	Samples	USCS	GRAPHIC	DESCRIPTION	PID
0					
1				SILTY SAND, some medium gravel, light brown, fine grained to coarse sand, dry, non plastic.	0.0
2		SM			
3					
4					
5					0.0

Hydrated Bentonite
1/8" Tubing
Dry Bentonite Chips
Porous PP Tip
Sand - Monterey #3

06-21-2019 L:\ESA\South Gate, Cty of\18-05744 Sthgte Ph I ESA\Report\Boring Logs\RB10.bor

Appendix B

Soil Matrix Laboratory Report

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	Rincon Consultants - LA
Address:	250 E. 1st Street Suite 301 Los Angeles, CA 90012
Attn:	Devin Cheyne

Lab Request:	412666
Report Date:	03/08/2019
Date Received:	02/20/2019
Client ID:	15729

Comments: South Gate
17-03990

Supplemental Report 1 - STLC results are now included

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
412666-001	RB6-0.5
412666-002	RB6-5
412666-003	RB7-0.5
412666-004	RB7-5
412666-005	RB8-0.5
412666-006	RB8-5
412666-007	RB9-0.5
412666-008	RB9-5
412666-009	RB10-0.5
412666-010	RB10-5

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:00	**Site:**			
Sample #:	**412666-001**	**Client Sample #:**	RB6-0.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	**2.86**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**118**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**0.75**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**16.6**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**11.9**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**53.5**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**9.94**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	**1.58**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**22.3**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**36.9**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**84.8**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	25	250	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	**420**	25	250	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	25	250	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*	
Triacontane (SUR)	*00*	*50-150*	*S2*	*Matrix interference.*

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:05	**Site:**			
Sample #:	**412666-002**	**Client Sample #:**	RB6-5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**107**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**0.78**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**14.8**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**9.22**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**15.0**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**1.34**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**11.8**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**36.8**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**47.8**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*113*	*50-150*	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:10	**Site:**			
Sample #:	**412666-003**	**Client Sample #:**	RB7-0.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**138**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**3.66**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**21.0**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**10.7**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**60.1**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**69.9**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	**1.63**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**26.3**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**45.1**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**168**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1212144		
Lead	**6.06**	10	0.15	mg/L	03/08/19	03/08/19	KLN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	5	50	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	**110**	5	50	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	5	50	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*119*	*50-150*	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:15	**Site:**			
Sample #:	**412666-004**	**Client Sample #:**	RB7-5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**163**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**1.06**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**21.1**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**13.5**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**23.3**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**1.55**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**17.5**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**52.4**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**70.1**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*110*	*50-150*	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:20	**Site:**			
Sample #:	**412666-005**	**Client Sample #:**	RB8-0.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**152**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**0.98**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**18.3**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**10.9**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**26.4**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**56.0**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**16.6**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**44.7**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**114**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1212144		
Lead	**2.85**	10	0.15	mg/L	03/08/19	03/08/19	KLN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	10	100	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	**160**	10	100	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	10	100	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:25	**Site:**			
Sample #:	**412666-006**	**Client Sample #:**	RB8-5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**115**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**0.66**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**14.4**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**8.70**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**20.8**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**10.9**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	**1.25**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**16.3**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**36.0**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**68.7**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	**0.16**	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	20	200	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	**350**	20	200	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	20	200	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*117*	*50-150*	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:30	**Site:**			
Sample #:	**412666-007**	**Client Sample #:**	RB9-0.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**93.3**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**2.29**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**15.3**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**6.02**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**29.2**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**58.9**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	**2.18**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**16.2**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**33.0**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**76.9**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1212144		
Lead	**7.07**	10	0.15	mg/L	03/08/19	03/08/19	KLN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	50	500	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	**10000**	50	500	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	50	500	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*	
Triacontane (SUR)	*00*	*50-150*	*S2*	*Matrix interference.*

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:35	**Site:**			
Sample #:	**412666-008**	**Client Sample #:**	RB9-5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**165**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**0.99**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**19.7**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**12.0**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**23.1**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**3.87**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	**1.37**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**15.6**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**48.2**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**63.0**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*116*	*50-150*	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:40	**Site:**			
Sample #:	**412666-009**	**Client Sample #:**	RB10-0.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**142**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**0.99**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**20.6**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**11.5**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**26.6**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**13.8**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**16.3**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**47.4**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**84.0**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	10	100	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	**320**	10	100	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	10	100	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*126*	*50-150*	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	02/20/2019 09:45	**Site:**			
Sample #:	**412666-010**	**Client Sample #:**	RB10-5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1211621		
Antimony	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Arsenic	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Barium	**185**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Beryllium	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Cadmium	**0.99**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Chromium	**20.7**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Cobalt	**12.1**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Copper	**24.4**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Lead	**2.81**	1	1	mg/Kg	02/22/19	02/22/19	JP	
Molybdenum	ND	1	1	mg/Kg	02/22/19	02/22/19	JP	
Nickel	**16.6**	1	1.5	mg/Kg	02/22/19	02/22/19	JP	
Selenium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Silver	ND	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Thallium	ND	1	3	mg/Kg	02/22/19	02/22/19	JP	
Vanadium	**45.5**	1	0.5	mg/Kg	02/22/19	02/22/19	JP	
Zinc	**66.7**	1	5	mg/Kg	02/22/19	02/22/19	JP	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1211672		
Mercury	ND	1	0.14	mg/Kg	02/25/19	02/25/19	JP	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1211565		
TPH (C13 to C22)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C23 to C44)	**10**	1	10	mg/Kg	02/21/19	02/21/19	DXN	
TPH (C6 to C12)	ND	1	10	mg/Kg	02/21/19	02/21/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

QCBatchID: QC1211565 **Analyst:** DNguyen **Method:** EPA 8015M

Matrix: Solid **Analyzed:** 02/21/2019 **Instrument:** SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1211565MB1					
TPH (C10 to C28)	ND	mg/Kg		10	
TPH (C13 to C22)	ND	mg/Kg		10	
TPH (C23 to C44)	ND	mg/Kg		10	
TPH (C28 to C40)	ND	mg/Kg		10	
TPH (C6 to C12)	ND	mg/Kg		10	
TPH (C8 to C10)	ND	mg/Kg		10	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1211565LCS1											
TPH (C10 to C28)	250		200		mg/Kg	80			60-133		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1211565MS1, QC1211565MSD1												**Source: 412666-001**
TPH (C10 to C28)	ND	250	250	240	200	mg/Kg	96	80	18.2	70-130	20	

QCBatchID: QC1211621 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 02/22/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1211621MB1					
Antimony	ND	mg/Kg		3	
Arsenic	ND	mg/Kg		1	
Barium	ND	mg/Kg		1	
Beryllium	ND	mg/Kg		0.5	
Cadmium	ND	mg/Kg		0.5	
Chromium	ND	mg/Kg		1	
Cobalt	ND	mg/Kg		0.5	
Copper	ND	mg/Kg		1	
Lead	ND	mg/Kg		1	
Molybdenum	ND	mg/Kg		1	
Nickel	ND	mg/Kg		1.5	
Selenium	ND	mg/Kg		3	
Silver	ND	mg/Kg		0.5	
Thallium	ND	mg/Kg		3	
Vanadium	ND	mg/Kg		0.5	
Zinc	ND	mg/Kg		5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1211621LCS1											
Antimony	100		90.0		mg/Kg	90			80-120		
Arsenic	100		92.8		mg/Kg	93			80-120		
Barium	100		96.8		mg/Kg	97			80-120		
Beryllium	100		100		mg/Kg	100			80-120		
Cadmium	100		85.1		mg/Kg	85			80-120		
Chromium	100		97.8		mg/Kg	98			80-120		
Cobalt	100		94.0		mg/Kg	94			80-120		
Copper	100		104		mg/Kg	104			80-120		
Lead	100		90.3		mg/Kg	90			80-120		
Molybdenum	100		98.1		mg/Kg	98			80-120		
Nickel	100		91.7		mg/Kg	92			80-120		
Selenium	100		85.8		mg/Kg	86			80-120		
Silver	100		100		mg/Kg	100			80-120		
Thallium	100		90.8		mg/Kg	91			80-120		
Vanadium	100		105		mg/Kg	105			80-120		
Zinc	100		106		mg/Kg	106			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1211621MS1, QC1211621MSD1												**Source: 412677-006**
Antimony	ND	100	100	57.2	50.7	mg/Kg	57	51	12.0	75-125	20	M
Arsenic	ND	100	100	93.3	89.3	mg/Kg	93	89	4.4	75-125	20	
Barium	19.8	100	100	120	120	mg/Kg	100	100	0.0	75-125	20	
Beryllium	ND	100	100	102	104	mg/Kg	102	104	1.9	75-125	20	
Cadmium	1.54	100	100	106	104	mg/Kg	104	102	1.9	75-125	20	
Chromium	6.81	100	100	111	108	mg/Kg	104	101	2.7	75-125	20	
Cobalt	2.31	100	100	99.2	97.8	mg/Kg	97	95	1.4	75-125	20	
Copper	3.64	100	100	112	109	mg/Kg	108	105	2.7	75-125	20	
Lead	1.85	100	100	92.2	91.1	mg/Kg	90	89	1.2	75-125	20	
Molybdenum	ND	100	100	102	101	mg/Kg	102	101	1.0	75-125	20	

QCBatchID: QC1211621 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 02/22/2019 **Instrument:** AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1211621MS1, QC1211621MSD1												**Source: 412677-006**
Nickel	4.40	100	100	120	118	mg/Kg	116	114	1.7	75-125	20	
Selenium	1.42	100	100	108	111	mg/Kg	107	110	2.7	75-125	20	
Silver	ND	100	100	104	101	mg/Kg	104	101	2.9	75-125	20	
Thallium	ND	100	100	105	107	mg/Kg	105	107	1.9	75-125	20	
Vanadium	19.8	100	100	131	130	mg/Kg	111	110	0.8	75-125	20	
Zinc	17.9	100	100	126	126	mg/Kg	108	108	0.0	75-125	20	

QCBatchID: QC1211672 **Analyst:** JParedes **Method:** EPA 7471A

Matrix: Solid **Analyzed:** 02/25/2019 **Instrument:** AAICP-HG1

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1211672MB1						
Mercury	ND	mg/Kg		0.14		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1211672LCS1											
Mercury	0.83		0.78		mg/Kg	94			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1211672MS1, QC1211672MSD1												**Source: 412677-006**
Mercury	ND	0.83	0.83	0.79	0.80	mg/Kg	95	96	1.3	75-125	20	

QCBatchID:	QC1212144	**Analyst:**	dswafford	**Method:**	EPA 6010B
Matrix:	Solid	**Analyzed:**	03/08/2019	**Instrument:**	AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1212144MB1						
Lead	ND	mg/L		0.015		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1212144LCS1, QC1212144LCSD1											
Lead	20	20	18.4	18.6	mg/L	92	93	1	80-120	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

For Enthalpy Analytics

~~AMERICAN SCIENTIFIC LABORATORIES, LLC~~

Environmental Testing Services

2520 N. San Fernando Road, LA, CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

Page 1 Of 1

COC# 83032 GLOBAL ID _____ E REPORT: ☐ PDF ☐ EDF ☐ EDD ASL JOB# 4126666

CHAIN OF CUSTODY RECORD

Company: Ramboll Consultants		Report To: Devon Cheyne	
Address: 250 E 1st Street	Project Name: South Gate	Address:	
Los Angeles, CA	Site Address:	Invoice To:	
Telephone: Fax:		Address:	
Special Instruction:	Project ID: 17-03990		
E-mail: dcheyne@ramboll consultants.com	Project Manager:	P.O.#:	

ANALYSIS REQUESTED

ITEM	LAB USE ONLY Lab ID	SAMPLE DESCRIPTION Sample ID	Date	Time	Container(s) #	Container(s) Type	Matrix	Preservation	8015M - GRO	17 CCR Metals-Lead	Remarks
1		RB6-0.5	2-20-19	0900	1		Soil		X	X	
2		RB6-5		0905	1				X	X	
3		RB7-0.5		0910	1				X	X	
4		RB7-5		0915	1				X	X	
5		RB8-0.5		0920	1				X	X	
6		RB8-5		0925	1				X	X	
7		RB9-0.5		0930	1				X	X	
8		RB9-5		0935	1				X	X	
9		RB10-0.5		0940	1				X	X	
10		RB10-5		0945	1				X	X	

Collected By: Devon Cheyne	Date 2-20-19 Time 0900	Relinquished By: Kevin Ngy	Date 2/20/19 Time 1500
Relinquished By: Cheyne	Date 2-20-19 Time 1330	Received For Laboratory Camp	Date 2/20/19 Time ~~1330~~ 1500
Received By: Kevin	Date 2/20/19 Time 1330	Condition of Sample:	

☐ TAT ☒ Normal ☐ Rush

White - *Report*, **Yellow** - *Laboratory*, **Pink** - *Client*

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants Project: South Gate

Date Received: 2/20/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 4.5 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 3.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?	✓		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 2/20/19

Enthalpy Analytical, LLC
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info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	Rincon Consultants - LA	Lab Request:	414492
Address:	250 E. 1st Street	Report Date:	05/14/2019
	Suite 1400	Date Received:	04/19/2019
	Los Angeles, CA 90012	Client ID:	15729
Attn:	Devin Cheyne		

Comments: South Gate
#17-03990

Supplemental Report 2 - Change order data requested on 04/29/19 and 05/08/19 are now included.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
414492-001	RB7-N1-1
414492-002	RB7-N1-3
414492-003	RB7-N1-5
414492-004	RB7-N2-1
414492-005	RB7-N2-3
414492-006	RB7-N2-5
414492-007	RB7-S1-1
414492-008	RB7-S1-3
414492-009	RB7-S1-5
414492-010	RB7-S2-1
414492-011	RB7-S2-3
414492-012	RB7-S2-5
414492-013	RB9-N1-1
414492-014	RB9-N1-3
414492-015	RB9-N1-5
414492-016	RB9-N2-1
414492-017	RB9-N2-3
414492-018	RB9-N2-5
414492-019	RB9-S1-1
414492-020	RB9-S1-3
414492-021	RB9-S1-5
414492-022	RB9-S2-1
414492-023	RB9-S2-3
414492-024	RB9-S2-5

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

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Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	04/18/2019 08:00	**Site:**			
Sample #:	**414492-001**	**Client Sample #:**	RB7-N1-1	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1201202		
Antimony	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Arsenic	**3.76**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Barium	**210**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Beryllium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Cadmium	**0.73**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Chromium	**24.7**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Cobalt	**15.3**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Copper	**27.4**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Lead	**7.42**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Molybdenum	ND	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Nickel	**16.8**	1	1.5	mg/Kg	04/22/19	04/23/19	KLN	
Selenium	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Silver	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Thallium	**7.04**	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Vanadium	**49.8**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Zinc	**75.6**	1	5	mg/Kg	04/22/19	04/23/19	KLN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A						QCBatchID: QC1201231		
Mercury	ND	1	0.14	mg/Kg	04/23/19	04/23/19	JP	
Method: EPA 8015B *NELAC* Prep Method: EPA 3545						QCBatchID: QC1201272		
TPH Diesel	ND	1	3	mg/Kg	04/24/19	04/25/19	DXN	B
TPH Motor Oil	ND	1	5	mg/Kg	04/24/19	04/25/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*62*	*50-150*	

Method: EPA 8015B *NELAC* Prep Method: EPA 5030						QCBatchID: QC1201050		
TPH Gasoline	ND	1	3	mg/Kg		04/22/19	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*95*	*60-140*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:05 **Site:**
Sample #: **414492-002** **Client Sample #:** RB7-N1-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1201202		
Antimony	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Arsenic	ND	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Barium	**71.2**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Beryllium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Cadmium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Chromium	**12.0**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Cobalt	**8.06**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Copper	**9.37**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Lead	**2.87**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Molybdenum	ND	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Nickel	**7.38**	1	1.5	mg/Kg	04/22/19	04/23/19	KLN	
Selenium	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Silver	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Thallium	**4.29**	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Vanadium	**32.1**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Zinc	**34.6**	1	5	mg/Kg	04/22/19	04/23/19	KLN	
Method: EPA 7471A NELAC Prep Method: EPA 7471A						QCBatchID: QC1201231		
Mercury	ND	1	0.14	mg/Kg	04/23/19	04/23/19	JP	
Method: EPA 8015B NELAC Prep Method: EPA 3545						QCBatchID: QC1201272		
TPH Diesel	ND	1	3	mg/Kg	04/24/19	04/25/19	DXN	B
TPH Motor Oil	ND	1	5	mg/Kg	04/24/19	04/25/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*55*	*50-150*	

Method: EPA 8015B NELAC Prep Method: EPA 5030						QCBatchID: QC1201050		
TPH Gasoline	ND	1	3	mg/Kg		04/23/19	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*95*	*60-140*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:10 **Site:**
Sample #: **414492-003** **Client Sample #:** RB7-N1-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:15 **Site:**
Sample #: **414492-004** **Client Sample #:** RB7-N2-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:20 **Site:**
Sample #: **414492-005** **Client Sample #:** RB7-N2-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	04/18/2019 08:25	**Site:**			
Sample #:	**414492-006**	**Client Sample #:**	RB7-N2-5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	04/18/2019 08:30	**Site:**			
Sample #:	**414492-007**	**Client Sample #:**	RB7-S1-1	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID:		QC1201202
Antimony	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Arsenic	**2.95**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Barium	**249**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Beryllium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Cadmium	**0.92**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Chromium	**25.4**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Cobalt	**13.9**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Copper	**40.6**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Lead	**102**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Molybdenum	ND	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Nickel	**17.3**	1	1.5	mg/Kg	04/22/19	04/23/19	KLN	
Selenium	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Silver	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Thallium	**5.81**	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Vanadium	**52.0**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Zinc	**162**	1	5	mg/Kg	04/22/19	04/23/19	KLN	
Method: EPA 7471A *NELAC*	Prep Method: EPA 7471A					QCBatchID:		QC1201231
Mercury	ND	1	0.14	mg/Kg	04/23/19	04/23/19	JP	
Method: EPA 8015B *NELAC*	Prep Method: EPA 3545					QCBatchID:		QC1201272
TPH Diesel	ND	25	75	mg/Kg	04/24/19	04/25/19	DXN	B
TPH Motor Oil	ND	25	125	mg/Kg	04/24/19	04/25/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*	
Triacontane (SUR)	*00*	*50-150*	*S*	*Surrogate has been diluted out.*

Method: EPA 8015B *NELAC*	Prep Method: EPA 5030					QCBatchID:		QC1201050
TPH Gasoline	ND	1	3	mg/Kg		04/23/19	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*95*	*60-140*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:35 **Site:**
Sample #: **414492-008** **Client Sample #:** RB7-S1-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1201202		
Antimony	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Arsenic	**3.31**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Barium	**166**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Beryllium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Cadmium	**0.72**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Chromium	**23.0**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Cobalt	**14.4**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Copper	**26.5**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Lead	**5.38**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Molybdenum	**1.02**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Nickel	**15.7**	1	1.5	mg/Kg	04/22/19	04/23/19	KLN	
Selenium	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Silver	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Thallium	**6.82**	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Vanadium	**46.2**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Zinc	**60.9**	1	5	mg/Kg	04/22/19	04/23/19	KLN	
Method: EPA 7471A NELAC Prep Method: EPA 7471A						QCBatchID: QC1201231		
Mercury	ND	1	0.14	mg/Kg	04/23/19	04/23/19	JP	
Method: EPA 8015B NELAC Prep Method: EPA 3545						QCBatchID: QC1201272		
TPH Diesel	ND	1	3	mg/Kg	04/24/19	04/25/19	DXN	B
TPH Motor Oil	ND	1	5	mg/Kg	04/24/19	04/25/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*60*	*50-150*	

Method: EPA 8015B NELAC Prep Method: EPA 5030						QCBatchID: QC1201050		
TPH Gasoline	ND	1	3	mg/Kg		04/23/19	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*100*	*60-140*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:40 **Site:**
Sample #: **414492-009** **Client Sample #:** RB7-S1-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:45 **Site:**
Sample #: **414492-010** **Client Sample #:** RB7-S2-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 1311/3010A						QCBatchID: QC1201857		
Lead	**0.801**	1	0.05	mg/L	05/10/19	05/10/19	SBW	
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1201474		
Lead	**1600**	1	1	mg/Kg	04/30/19	04/30/19	KLN	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:50 **Site:**
Sample #: 414492-011 **Client Sample #:** RB7-S2-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1201812		
Lead	**4.49**	1	1	mg/Kg	05/09/19	05/10/19	SBW	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 08:55 **Site:**
Sample #: 414492-012 **Client Sample #:** RB7-S2-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:00 **Site:**
Sample #: 414492-013 **Client Sample #:** RB9-N1-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1201202		
Antimony	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Arsenic	**11.1**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Barium	**165**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Beryllium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Cadmium	**0.93**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Chromium	**21.4**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Cobalt	**11.8**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Copper	**29.2**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Lead	**142**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Molybdenum	ND	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Nickel	**14.7**	1	1.5	mg/Kg	04/22/19	04/23/19	KLN	
Selenium	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Silver	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Thallium	**5.32**	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Vanadium	**44.7**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Zinc	**81.8**	1	5	mg/Kg	04/22/19	04/23/19	KLN	
Method: EPA 7471A NELAC Prep Method: EPA 7471A						QCBatchID: QC1201231		
Mercury	ND	1	0.14	mg/Kg	04/23/19	04/23/19	JP	
Method: EPA 8015B NELAC Prep Method: EPA 3545						QCBatchID: QC1201272		
TPH Diesel	ND	25	75	mg/Kg	04/24/19	04/25/19	DXN	B
TPH Motor Oil	ND	25	125	mg/Kg	04/24/19	04/25/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*	
Triacontane (SUR)	*00*	*50-150*	*S*	*Surrogate has been diluted out.*

Method: EPA 8015B NELAC Prep Method: EPA 5030						QCBatchID: QC1201050		
TPH Gasoline	ND	1	3	mg/Kg		04/23/19	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*95*	*60-140*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:05 **Site:**
Sample #: **414492-014** **Client Sample #:** RB9-N1-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1201202		
Antimony	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Arsenic	**6.63**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Barium	**215**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Beryllium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Cadmium	**0.91**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Chromium	**25.9**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Cobalt	**18.0**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Copper	**34.1**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Lead	**7.73**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Molybdenum	**3.33**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Nickel	**19.0**	1	1.5	mg/Kg	04/22/19	04/23/19	KLN	
Selenium	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Silver	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Thallium	**6.39**	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Vanadium	**55.2**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Zinc	**69.7**	1	5	mg/Kg	04/22/19	04/23/19	KLN	
Method: EPA 7471A NELAC Prep Method: EPA 7471A						QCBatchID: QC1201231		
Mercury	ND	1	0.14	mg/Kg	04/23/19	04/23/19	JP	
Method: EPA 8015B NELAC Prep Method: EPA 3545						QCBatchID: QC1201272		
TPH Diesel	**3.03**	1	3	mg/Kg	04/24/19	04/25/19	DXN	B
TPH Motor Oil	ND	1	5	mg/Kg	04/24/19	04/25/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*72*	*50-150*	

Method: EPA 8015B NELAC Prep Method: EPA 5030						QCBatchID: QC1201050		
TPH Gasoline	ND	1	3	mg/Kg		04/23/19	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*80*	*60-140*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:10 **Site:**
Sample #: **414492-015** **Client Sample #:** RB9-N1-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:15 **Site:**
Sample #: **414492-016** **Client Sample #:** RB9-N2-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1201474		
Lead	**131**	1	1	mg/Kg	04/30/19	04/30/19	KLN	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:20 **Site:**
Sample #: **414492-017** **Client Sample #:** RB9-N2-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1201812		
Lead	**5.29**	1	1	mg/Kg	05/09/19	05/10/19	SBW	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	04/18/2019 09:25	**Site:**			
Sample #:	**414492-018**	**Client Sample #:**	RB9-N2-5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	04/18/2019 09:30	**Site:**			
Sample #:	**414492-019**	**Client Sample #:**	RB9-S1-1	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID:		QC1201202
Antimony	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Arsenic	**2.90**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Barium	**165**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Beryllium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Cadmium	**0.63**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Chromium	**19.2**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Cobalt	**11.3**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Copper	**24.6**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Lead	**65.1**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Molybdenum	ND	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Nickel	**13.4**	1	1.5	mg/Kg	04/22/19	04/23/19	KLN	
Selenium	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Silver	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Thallium	**4.78**	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Vanadium	**44.3**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Zinc	**87.2**	1	5	mg/Kg	04/22/19	04/23/19	KLN	
Method: EPA 7471A *NELAC*	Prep Method: EPA 7471A					QCBatchID:		QC1201231
Mercury	ND	1	0.14	mg/Kg	04/23/19	04/23/19	JP	
Method: EPA 8015B *NELAC*	Prep Method: EPA 3545					QCBatchID:		QC1201272
TPH Diesel	ND	10	30	mg/Kg	04/24/19	04/25/19	DXN	B
TPH Motor Oil	ND	10	50	mg/Kg	04/24/19	04/25/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*	
Triacontane (SUR)	*00*	*50-150*	*S*	*Matrix interference.*

Method: EPA 8015B *NELAC*	Prep Method: EPA 5030					QCBatchID:		QC1201050
TPH Gasoline	ND	1	3	mg/Kg		04/23/19	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*95*	*60-140*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:35 **Site:**
Sample #: **414492-020** **Client Sample #:** RB9-S1-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1201202		
Antimony	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Arsenic	**3.08**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Barium	**195**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Beryllium	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Cadmium	**0.65**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Chromium	**20.4**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Cobalt	**12.1**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Copper	**24.4**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Lead	**10.7**	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Molybdenum	ND	1	1	mg/Kg	04/22/19	04/23/19	KLN	
Nickel	**14.4**	1	1.5	mg/Kg	04/22/19	04/23/19	KLN	
Selenium	ND	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Silver	ND	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Thallium	**5.50**	1	3	mg/Kg	04/22/19	04/23/19	KLN	
Vanadium	**44.3**	1	0.5	mg/Kg	04/22/19	04/23/19	KLN	
Zinc	**60.0**	1	5	mg/Kg	04/22/19	04/23/19	KLN	
Method: EPA 7471A NELAC	Prep Method: EPA 7471A					QCBatchID: QC1201231		
Mercury	ND	1	0.14	mg/Kg	04/23/19	04/23/19	JP	
Method: EPA 8015B NELAC	Prep Method: EPA 3545					QCBatchID: QC1201272		
TPH Diesel	**6.00**	1	3	mg/Kg	04/24/19	04/25/19	DXN	B
TPH Motor Oil	**5.53**	1	5	mg/Kg	04/24/19	04/25/19	DXN	

Surrogate	*% Recovery*	*Limits*	*Notes*	
Triacontane (SUR)	*43*	*50-150*	*S*	*Matrix interference.*

Method: EPA 8015B NELAC	Prep Method: EPA 5030					QCBatchID: QC1201050		
TPH Gasoline	ND	1	3	mg/Kg		04/23/19	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*100*	*60-140*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:40 **Site:**
Sample #: **414492-021** **Client Sample #:** RB9-S1-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:45 **Site:**
Sample #: **414492-022** **Client Sample #:** RB9-S2-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1201474		
Lead	**254**	1	1	mg/Kg	04/30/19	04/30/19	KLN	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 04/18/2019 09:50 **Site:**
Sample #: **414492-023** **Client Sample #:** RB9-S2-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1201812		
Lead	**7.49**	1	1	mg/Kg	05/09/19	05/10/19	SBW	

Matrix:	Solid	**Client:**	Rincon Consultants - LA	**Collector:**	Client
Sampled:	04/18/2019 09:55	**Site:**			
Sample #:	**414492-024**	**Client Sample #:**	RB9-S2-5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

QCBatchID: QC1201050 **Analyst:** sandyw **Method:** EPA 8015B

Matrix: Solid **Analyzed:** 04/22/2019 **Instrument:** VOA-GC (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1201050MB1						
TPH (C5 to C12)	ND	mg/Kg		3		
TPH Gasoline	ND	mg/Kg		3		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201050LCS1											
TPH Gasoline	5		5.0		mg/Kg	100			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201050MS1, QC1201050MSD1												**Source: 414492-001**
TPH Gasoline	ND	5	5	4.8	4.9	mg/Kg	96	98	2.1	70-130	20	

QCBatchID: QC1201202 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 04/23/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1201202MB1					
Antimony	ND	mg/Kg		3	
Arsenic	ND	mg/Kg		1	
Barium	ND	mg/Kg		1	
Beryllium	ND	mg/Kg		0.5	
Cadmium	ND	mg/Kg		0.5	
Chromium	ND	mg/Kg		1	
Cobalt	ND	mg/Kg		0.5	
Copper	ND	mg/Kg		1	
Lead	ND	mg/Kg		1	
Molybdenum	ND	mg/Kg		1	
Nickel	ND	mg/Kg		1.5	
Selenium	ND	mg/Kg		3	
Silver	ND	mg/Kg		0.5	
Thallium	ND	mg/Kg		3	
Vanadium	ND	mg/Kg		0.5	
Zinc	ND	mg/Kg		5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201202LCS1											
Antimony	100		112		mg/Kg	112			80-120		
Arsenic	100		100		mg/Kg	100			80-120		
Barium	100		104		mg/Kg	104			80-120		
Beryllium	100		97.1		mg/Kg	97			80-120		
Cadmium	100		98.4		mg/Kg	98			80-120		
Chromium	100		96.0		mg/Kg	96			80-120		
Cobalt	100		102		mg/Kg	102			80-120		
Copper	100		100		mg/Kg	100			80-120		
Lead	100		104		mg/Kg	104			80-120		
Molybdenum	100		105		mg/Kg	105			80-120		
Nickel	100		105		mg/Kg	105			80-120		
Selenium	100		92.9		mg/Kg	93			80-120		
Silver	100		93.6		mg/Kg	94			80-120		
Thallium	100		96.2		mg/Kg	96			80-120		
Vanadium	100		102		mg/Kg	102			80-120		
Zinc	100		96.0		mg/Kg	96			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201202MS1, QC1201202MSD1												**Source: 414488-021**
Antimony	0.42	100	100	33.9	31.7	mg/Kg	33	31	6.7	75-125	20	M
Arsenic	4.58	100	100	89.9	84.7	mg/Kg	85	80	6.0	75-125	20	
Barium	128	100	100	215	204	mg/Kg	87	76	5.3	75-125	20	
Beryllium	ND	100	100	88.4	83.9	mg/Kg	88	84	5.2	75-125	20	
Cadmium	1.64	100	100	84.5	81.1	mg/Kg	83	79	4.1	75-125	20	
Chromium	20.8	100	100	102	98.2	mg/Kg	81	77	3.8	75-125	20	
Cobalt	10.4	100	100	94.4	89.5	mg/Kg	84	79	5.3	75-125	20	
Copper	26.2	100	100	113	108	mg/Kg	87	82	4.5	75-125	20	
Lead	86.0	100	100	135	136	mg/Kg	49	50	0.7	75-125	20	M
Molybdenum	2.01	100	100	79.6	76.4	mg/Kg	78	74	4.1	75-125	20	M

QCBatchID: QC1201202 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 04/23/2019 **Instrument:** AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201202MS1, QC1201202MSD1												**Source: 414488-021**
Nickel	15.3	100	100	99.5	94.5	mg/Kg	84	79	5.2	75-125	20	
Selenium	ND	100	100	76.0	74.1	mg/Kg	76	74	2.5	75-125	20	M
Silver	ND	100	100	78.8	78.2	mg/Kg	79	78	0.8	75-125	20	
Thallium	6.37	100	100	80.5	76.8	mg/Kg	74	70	4.7	75-125	20	M
Vanadium	47.2	100	100	138	131	mg/Kg	91	84	5.2	75-125	20	
Zinc	178	100	100	201	205	mg/Kg	23	27	2.0	75-125	20	M

QCBatchID: QC1201231 **Analyst:** JParedes **Method:** EPA 7471A

Matrix: Solid **Analyzed:** 04/23/2019 **Instrument:** AAICP-HG1

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1201231MB1						
Mercury	ND	mg/Kg		0.14		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201231LCS1											
Mercury	0.83		0.84		mg/Kg	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201231MS1, QC1201231MSD1												**Source: 414488-021**
Mercury	0.09	0.83	0.83	0.81	0.79	mg/Kg	87	84	2.5	75-125	20	

QCBatchID: QC1201272 **Analyst:** DNguyen **Method:** EPA 8015B

Matrix: Solid **Analyzed:** 04/24/2019 **Instrument:** SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1201272MB1					
TPH Diesel	**1.53**	mg/Kg		1	B
TPH Motor Oil	ND	mg/Kg		5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201272LCS1											
TPH Diesel	25		22.7		mg/Kg	91			52-122		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201272MS1, QC1201272MSD1												**Source: 414492-001**
TPH Diesel	1.92	25	25	28.8	23.5	mg/Kg	108	86	20.3	70-130	20	M

QCBatchID: QC1201474 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 04/30/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1201474MB1					
Antimony	ND	mg/Kg		3	
Arsenic	ND	mg/Kg		1	
Barium	ND	mg/Kg		1	
Beryllium	ND	mg/Kg		0.5	
Cadmium	ND	mg/Kg		0.5	
Chromium	ND	mg/Kg		1	
Cobalt	ND	mg/Kg		0.5	
Copper	ND	mg/Kg		1	
Lead	ND	mg/Kg		1	
Molybdenum	ND	mg/Kg		1	
Nickel	ND	mg/Kg		1.5	
Selenium	ND	mg/Kg		3	
Silver	ND	mg/Kg		0.5	
Thallium	ND	mg/Kg		3	
Vanadium	ND	mg/Kg		0.5	
Zinc	ND	mg/Kg		5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201474LCS1											
Antimony	100		112		mg/Kg	112			80-120		
Arsenic	100		96.3		mg/Kg	96			80-120		
Barium	100		97.6		mg/Kg	98			80-120		
Beryllium	100		92.3		mg/Kg	92			80-120		
Cadmium	100		98.2		mg/Kg	98			80-120		
Chromium	100		96.0		mg/Kg	96			80-120		
Cobalt	100		101		mg/Kg	101			80-120		
Copper	100		97.2		mg/Kg	97			80-120		
Lead	100		103		mg/Kg	103			80-120		
Molybdenum	100		102		mg/Kg	102			80-120		
Nickel	100		105		mg/Kg	105			80-120		
Selenium	100		93.5		mg/Kg	94			80-120		
Silver	100		100		mg/Kg	100			80-120		
Thallium	100		94.7		mg/Kg	95			80-120		
Vanadium	100		101		mg/Kg	101			80-120		
Zinc	100		105		mg/Kg	105			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201474MS1, QC1201474MSD1												**Source: 414759-001**
Antimony	6.62	100	100	22.5	32.9	mg/Kg	16	26	37.5	75-125	20	M,D
Arsenic	ND	100	100	102	102	mg/Kg	102	102	0.0	75-125	20	
Barium	10.7	100	100	116	113	mg/Kg	105	102	2.6	75-125	20	
Beryllium	ND	100	100	97.5	102	mg/Kg	98	102	4.5	75-125	20	
Cadmium	ND	100	100	104	99.7	mg/Kg	104	100	4.2	75-125	20	
Chromium	457	100	100	498	556	mg/Kg	41	99	11.0	75-125	20	NC
Cobalt	0.23	100	100	109	105	mg/Kg	109	105	3.7	75-125	20	
Copper	2.77	100	100	112	107	mg/Kg	109	104	4.6	75-125	20	
Lead	1.65	100	100	108	107	mg/Kg	106	105	0.9	75-125	20	
Molybdenum	1.60	100	100	90.0	93.1	mg/Kg	88	92	3.4	75-125	20	

QCBatchID: QC1201474 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 04/30/2019 **Instrument:** AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201474MS1, QC1201474MSD1												**Source: 414759-001**
Nickel	0.31	100	100	113	114	mg/Kg	113	114	0.9	75-125	20	
Selenium	ND	100	100	102	102	mg/Kg	102	102	0.0	75-125	20	
Silver	0.15	100	100	109	101	mg/Kg	109	101	7.6	75-125	20	
Thallium	ND	100	100	7.98	15.5	mg/Kg	8	16	64.1	75-125	20	M,D
Vanadium	2.86	100	100	107	104	mg/Kg	104	101	2.8	75-125	20	
Zinc	3.04	100	100	106	102	mg/Kg	103	99	3.8	75-125	20	

QCBatchID: QC1201812 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 05/09/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1201812MB1					
Antimony	ND	mg/Kg		3	
Arsenic	ND	mg/Kg		1	
Barium	ND	mg/Kg		1	
Beryllium	ND	mg/Kg		0.5	
Cadmium	ND	mg/Kg		0.5	
Chromium	ND	mg/Kg		1	
Cobalt	ND	mg/Kg		0.5	
Copper	ND	mg/Kg		1	
Lead	ND	mg/Kg		1	
Molybdenum	ND	mg/Kg		1	
Nickel	ND	mg/Kg		1.5	
Selenium	ND	mg/Kg		3	
Silver	ND	mg/Kg		0.5	
Thallium	ND	mg/Kg		3	
Vanadium	ND	mg/Kg		0.5	
Zinc	ND	mg/Kg		5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201812LCS1											
Antimony	100		112		mg/Kg	112			80-120		
Arsenic	100		94.6		mg/Kg	95			80-120		
Barium	100		100		mg/Kg	100			80-120		
Beryllium	100		99.7		mg/Kg	100			80-120		
Cadmium	100		103		mg/Kg	103			80-120		
Chromium	100		98.7		mg/Kg	99			80-120		
Cobalt	100		103		mg/Kg	103			80-120		
Copper	100		95.8		mg/Kg	96			80-120		
Lead	100		106		mg/Kg	106			80-120		
Molybdenum	100		103		mg/Kg	103			80-120		
Nickel	100		107		mg/Kg	107			80-120		
Selenium	100		94.9		mg/Kg	95			80-120		
Silver	100		97.4		mg/Kg	97			80-120		
Thallium	100		95.0		mg/Kg	95			80-120		
Vanadium	100		99.0		mg/Kg	99			80-120		
Zinc	100		109		mg/Kg	109			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201812MS1, QC1201812MSD1												**Source: 415067-001**
Antimony	ND	100	100	26.2	25.4	mg/Kg	26	25	3.1	75-125	20	M
Arsenic	2.95	100	100	97.6	94.7	mg/Kg	95	92	3.0	75-125	20	
Barium	76.6	100	100	164	166	mg/Kg	87	89	1.2	75-125	20	
Beryllium	ND	100	100	99.0	98.1	mg/Kg	99	98	0.9	75-125	20	
Cadmium	0.62	100	100	99.0	100	mg/Kg	98	99	1.0	75-125	20	
Chromium	28.3	100	100	132	134	mg/Kg	104	106	1.5	75-125	20	
Cobalt	8.38	100	100	109	108	mg/Kg	101	100	0.9	75-125	20	
Copper	9.70	100	100	107	102	mg/Kg	97	92	4.8	75-125	20	
Lead	3.50	100	100	110	106	mg/Kg	107	103	3.7	75-125	20	
Molybdenum	0.57	100	100	95.2	92.8	mg/Kg	95	92	2.6	75-125	20	

QCBatchID: QC1201812 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 05/09/2019 **Instrument:** AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201812MS1, QC1201812MSD1												**Source: 415067-001**
Nickel	23.6	100	100	132	126	mg/Kg	108	102	4.7	75-125	20	
Selenium	ND	100	100	95.0	89.9	mg/Kg	95	90	5.5	75-125	20	
Silver	ND	100	100	96.3	96.0	mg/Kg	96	96	0.3	75-125	20	
Thallium	0.43	100	100	93.3	91.6	mg/Kg	93	91	1.8	75-125	20	
Vanadium	29.5	100	100	135	136	mg/Kg	106	107	0.7	75-125	20	
Zinc	23.8	100	100	121	124	mg/Kg	97	100	2.4	75-125	20	

QCBatchID: QC1201857 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 05/10/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1201857MB1					
Antimony	ND	mg/L		0.05	
Arsenic	ND	mg/L		0.05	
Barium	ND	mg/L		0.5	
Beryllium	ND	mg/L		0.05	
Cadmium	ND	mg/L		0.05	
Chromium	ND	mg/L		0.05	
Cobalt	ND	mg/L		0.05	
Copper	ND	mg/L		0.05	
Lead	ND	mg/L		0.05	
Molybdenum	ND	mg/L		0.05	
Nickel	ND	mg/L		0.05	
Selenium	ND	mg/L		0.05	
Silver	ND	mg/L		0.05	
Thallium	ND	mg/L		0.05	
Vanadium	ND	mg/L		0.05	
Zinc	**0.106**	mg/L		0.05	B

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201857LCS1											
Antimony	2		2.13		mg/L	107			80-120		
Arsenic	2		1.952		mg/L	98			80-120		
Barium	2		2.40		mg/L	120			80-120		
Beryllium	2		1.99		mg/L	100			80-120		
Cadmium	2		2.12		mg/L	106			80-120		
Chromium	2		1.975		mg/L	99			80-120		
Cobalt	2		1.99		mg/L	100			80-120		
Copper	2		2.20		mg/L	110			80-120		
Lead	2		1.976		mg/L	99			80-120		
Molybdenum	2		1.99		mg/L	100			80-120		
Nickel	2		1.94		mg/L	97			80-120		
Selenium	2		1.943		mg/L	97			80-120		
Silver	2		2.13		mg/L	107			80-120		
Thallium	2		1.60		mg/L	80			80-120		
Vanadium	2		2.07		mg/L	104			80-120		
Zinc	2		2.27		mg/L	114			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201857MS1, QC1201857MSD1												**Source: 414488-006**
Antimony	0.038	1	1	1.09	1.18	mg/L	105	114	7.9	75-125	20	
Arsenic	0.026	1	1	0.970	0.965	mg/L	94	94	0.5	75-125	20	
Barium	0.80	1	1	1.74	1.74	mg/L	94	94	0.0	75-125	20	
Beryllium	ND	1	1	0.939	0.936	mg/L	94	94	0.3	75-125	20	
Cadmium	0.084	1	1	0.976	0.953	mg/L	89	87	2.4	75-125	20	
Chromium	ND	1	1	0.908	0.890	mg/L	91	89	2.0	75-125	20	
Cobalt	ND	1	1	0.921	0.868	mg/L	92	87	5.9	75-125	20	
Copper	0.012	1	1	1.06	0.990	mg/L	105	98	6.8	75-125	20	
Lead	0.015	1	1	0.934	0.878	mg/L	92	86	6.2	75-125	20	
Molybdenum	0.018	1	1	0.957	0.913	mg/L	94	90	4.7	75-125	20	

QCBatchID: QC1201857 **Analyst:** dswafford **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 05/10/2019 **Instrument:** AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1201857MS1, QC1201857MSD1												**Source: 414488-006**
Nickel	0.005	1	1	0.872	0.826	mg/L	87	82	5.4	75-125	20	
Selenium	ND	1	1	0.958	0.909	mg/L	96	91	5.2	75-125	20	
Silver	ND	1	1	1.037	1.008	mg/L	104	101	2.8	75-125	20	
Thallium	0.064	1	1	0.737	0.728	mg/L	67	66	1.2	75-125	20	M
Vanadium	ND	1	1	0.987	0.972	mg/L	99	97	1.5	75-125	20	
Zinc	0.044	1	1	0.937	0.881	mg/L	89	84	6.2	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868	Lab No: 414492	Standard: X / 4 Day: / 3 Day:
Phone: (714) 771-6900 Fax: (714)771-9933	Page: 1 of 3	2 Day: / 1 Day: / Same Day:
Billing: Enthalpy - SoCal	Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other
c/o Montrose Environmental Group		
1 Park Plaza, Suite 1000, Irvine, CA 92614		

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	South Gate
Report To:	Devin Cheyne	Number:	
Email:	dcheyne@rinconconsultants.com	P.O. #:	17-03990
Address:	250 E 1st Street	Address:	
	Los Angeles, CA		
Phone:		Global ID:	
Fax:		Sampled By:	D. Cheyne

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH 8015M (G,O,D)	Analysis Request: 17 CCR Metals	Test Instructions / Comments
1	RB7-N1-1	4-18-19	0800	S:1	1		X	X	
2	RB7-N1-3	"	0805	"	"		X	X	
3	RB7-N1-5	"	0810	"	"				Hold
4	RB7-N2-1	"	0815	"	"				"
5	RB7-N2-3	"	0820	"	"				"
6	RB7-N2-5	"	0825	"	"				"
7	RB7-S1-1	"	0830	"	"		X	X	
8	RB7-S1-3	"	0835	"	"		X	X	
9	RB7-S1-5	"	0840	"	"				Hold
10									

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devin Cheyne	Rincon	4-19-19 1010
1 Received By:		Kesia Nguyen	Enthalpy	4/19/19 1010
2 Relinquished By:		Kesia	Enthalpy	4/19/19 1517
2 Received By:		Valeda Heerman	EA	04/19/19 1517
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868	Lab No: 414492	Standard: X / 4 Day: / 3 Day:
Phone: (714) 771-6900 Fax: (714)771-9933	Page: 2 of 3	2 Day: / 1 Day: / Same Day:
Billing: Enthalpy - SoCal	Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other
c/o Montrose Environmental Group		
1 Park Plaza, Suite 1000, Irvine, CA 92614		

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	South Gate
Report To:	Devin Cheyne	Number:	
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Cheyne

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH 8015M (G,D,O); CCR Metals	Test Instructions / Comments
1	RB7-S2-1	4-18-19	0845	Soil	1		X X DC	Hold
2	RB7-S2-3		0850				X DC	"
3	RB7-S2-5		0855					"
4	RB9-N1-1		0900				X X	
5	RB9-N1-3		0905				X X	
6	RB9-N1-5		0910					Hold
7	RB9-N2-1		0915					"
8	RB9-N2-3		0920					"
9	RB9-N2-5		0925					"
10								

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Devin Cheyne	Rincon	4-19-19 1010
[1] Received By:		Lee	Enthalpy	4/19/19 1010
[2] Relinquished By:		Lee	Enthalpy	4/19/19 1517
[2] Received By:		Leaeathernan	EA	04/19/19 1517
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL, INC.

806 N. Batavia St., Orange, CA 92868

Phone: (714) 771-6900 Fax: (714)771-9933

Billing: Enthalpy - SoCal

c/o Montrose Environmental Group

1 Park Plaza, Suite 1000, Irvine, CA 92614

ENTHALPY analytical, inc.

Chain of Custody Record

Lab No: 414492

Page: 3 of 3

Turn Around Time (Rush by advanced notice only)

Standard:	X	4 Day:		3 Day:	
2 Day:		1 Day:		Same Day:	

Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	South Gate
Report To:	Devon Chayre	Number:	
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH 8015M (G,D,O)	Analysis Request: 17 CCR Metals	Test Instructions / Comments
1	RB9-S1-1	4-18-19	0930	Soil	1		X	X	
2	RB9-S1-3	"	0935	"	"		X	X	
3	RB9-S1-5	"	0940	"	"				Hold
4	RB9-S2-1	"	0945	"	"				"
5	RB9-S2-3	"	0950	"	"				"
6	RB9-S2-5	"	0955	"	"				"
7									
8									
9									
10									

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Devon Chayre	Rincon	4-19-19 1010
[1] Received By:			Enthalpy	4/19/19 1010
[2] Relinquished By:			Enthalpy	4/19/19 1517
[2] Received By:		Catherman	EA	04/19/19 1517
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Project: South Gate

Date Received: 4/19/19 Sampler's Name Present: [X] Yes [ ] No

Section 2

Sample(s) received in a cooler? [✓] Yes, How many? 1 [ ] No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: [✓] Ice [ ] Ice Packs [ ] Bubble Wrap [ ] Styrofoam [ ] Paper [ ] None [ ] Other _____

Cooler Temp (°C): #1: 1.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? [ ] Verbal PM Initials: _____ Date/Time _____

[ ] Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 04/19/19

Ranjit Clarke

Subject: South Gate (04/18/19) - Enthalpy Analytical Final Report #414492

From: Devin Cheyne <dcheyne@rinconconsultants.com>
Sent: Monday, April 29, 2019 12:06 PM
To: Ranjit Clarke <ranjit.clarke@enthalpy.com>
Cc: Scott English <SEnglish@rinconconsultants.com>
Subject: Re: South Gate (04/18/19) - Enthalpy Analytical Final Report #414492

Thanks Ranjit, can we please run:

RB7-S2-1: Lead

RB9-N2-1: Lead

RB9-S2-1: Lead

On Apr 29, 2019, at 10:21 AM, Ranjit Clarke <ranjit.clarke@enthalpy.com> wrote:

CAUTION: This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

Devin,

Total Lead = $xx

STLC Lead = $xx

TCLP Lead = $xx

Ranjit

<image004.jpg>

Ranjit Clarke
Senior Project Manager
O: 714-771-9906 / M: 657-274-9864 / F: 714-538-1209
Ranjit.Clarke@Enthalpy.com

From: Devin Cheyne <dcheyne@rinconconsultants.com>
Sent: Monday, April 29, 2019 9:33 AM
To: 'Ranjit Clarke' <Ranjit.Clarke@enthalpy.com>
Subject: RE: South Gate (04/18/19) - Enthalpy Analytical Final Report #414492

Thanks Ranjit,

Ranjit Clarke

From: Devin Cheyne
Sent: Wednesday, May 08, 2019 9:52 AM
To: 'Ranjit Clarke'
Cc: Scott English
Subject: RE: South Gate (04/18/19) - Enthalpy Analytical Final Report #414492 - Supplemental Report 1

Hey Ranjit,

Can we please run Standard TAT:

TCLP for RB7-S2-1
Total lead for: -RB7-S2-3
-RB9-N2-3
-RB9-S2-3

Thanks,

Devin Cheyne
Associate Environmental Scientist

Rincon Consultants, Inc.
Office 213 788 4842 ext 192
Mobile 909 973 3691
www.rinconconsultants.com
Environmental Scientists Planners Engineers

From: Ranjit Clarke [mailto:ranjit.clarke@enthalpy.com]
Sent: Friday, May 03, 2019 5:10 PM
To: Devin Cheyne
Subject: South Gate (04/18/19) - Enthalpy Analytical Final Report #414492 - Supplemental Report 1

CAUTION: This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

Hi Devin Cheyne,

Attached is your final report #414492.

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

Appendix C

Soil Vapor Laboratory Report

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

February 21, 2019

Mr. Devin Cheyne
Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, CA 93003

Dear Mr. Cheyne:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology (Optimal), for Rincon Consultants, Inc. on February 20, 2019. The study was performed at 9001, 9015 & 9019 Long Beach Bl., South Gate, California.

Optimal was contracted to perform a soil vapor survey at this site to screen for possible chlorinated solvents and aromatic hydrocarbons. The primary objective of this soil vapor investigation was to determine if soil vapor contamination is present in the subsurface soil.

Gas Sampling Method

At each sampling location, an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil vapor was attached to the existing well and purged prior to sample collection. Vapor samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. Samples were immediately injected into the gas chromatograph/purge and trap after collection. New tubing was used at each sampling point to prevent cross contamination.

All analyses were performed on a laboratory grade Agilent model 6890N gas chromatograph equipped with an Agilent model 5973N Mass Spectra Detector and Tekmar LSC 3100 Purge and Trap. A Restek column using helium as the carrier gas was used to perform all analysis. All results were collected on a personal computer utilizing Agilent's MS and chromatographic data collection and handling system.

Quality Assurance

5-Point Calibration
The initial five-point calibration consisted of 20, 50, 100, 200 and 500 ul injections of the calibration standard. A calibration factor on each analyte was generated using a best fit line method using the Agilent data system. If the r^2 factor generated from this line was not greater

than 0.990, an additional five-point calibration would have been performed. Method reporting limits were calculated to be 0.004-1.0 micrograms per Liter (ug/L) for the individual compounds.

A daily calibration check was performed using a pre-mixed standard supplied by Scotty Analyzed Gases. The standard contained common halogenated solvents and aromatic hydrocarbons (see Table 1). The individual compound concentrations in the standards ranged between 0.025 nanograms per microliter (ng/ul) and 0.25 ng/ul.

TABLE 1

Dichlorodifluoromethane	Carbon Tetrachloride	Chloroethane
Trichlorofluoromethane	1,2-Dichloroethane	Benzene
1,1-Dichloroethene	Trichloroethene	Toluene
Methylene Chloride	1,1,2-Trichloroethane	Ethylbenzene
trans-1,2-Dichloroethene	Tetrachloroethene	m-/p-Xylene
1,1-Dichloroethane	Chloroform	o-Xylene
cis-1,2-Dichloroethene	1,1,1,2-Tetrachloroethane	Vinyl Chloride
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	Freon 113
4-Methyl-2-Pentanone	Cyclohexane	Acetone
Chlorobenzene	2-Butanone	Isobutane

Sample Replicates
A replicate analysis (duplicate) was run to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%.

Equipment Blanks
Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

Tracer Gas Leak Test
A tracer gas was applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas. No Isobutane was found in any of the samples collected.

Purge Volume
The standard purge volume of three volumes was purged in accordance with the July 2015 DTSC/RWQCB Advisory for Active Soil Gas Investigations.

Shut-in Test
A shut-in test was conducted prior to purging or sampling each location to check for leaks in the above-ground sampling system. The system was evaluated to a minimum measured vacuum of

100 inches of water. The vacuum gauge was calibrated and sensitive enough to indicate a water pressure change of at least 0.5 inches.

Scope of Work

To achieve the objective of this investigation a total of 11 vapor samples were collected from 10 locations at the site. Sampling depths, vacuum readings, purge volume and sampling volumes are given on the analytical results page. All the collected vapor samples were analyzed on-site using Optimal's mobile laboratory.

Subsurface Conditions

Soil conditions offered sampling flows at 0" water vacuum.

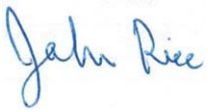
Results

During this vapor investigation, none of the compounds listed in Table 1 above were detected above the listed reporting limits. A complete table of analytical results is included with this report.

Disclaimer

All conclusions presented in this letter are based solely on the information collected by the soil vapor survey conducted by Optimal Technology. Soil vapor testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater. We enjoyed working with you on this project and look forward to future projects. If you have any questions, please contact me at (877) 764-5427.

Sincerely,



John Rice
Project Manager

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

SOIL VAPOR RESULTS

Site Name: 9001, 9015 & 9019 Long Beach Bl., South Gate, CA **Lab Name:** Optimal Technology **Date:** 2/20/19
Analyst: J. Rice **Collector:** J. Rice **Inst. ID:** Agilent 6890N
Method: Modified EPA 8260B **Detector:** Agilent 5973N Mass Spectrometer

SAMPLE ID	BLANK-1	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7
Sampling Depth (Ft.)	N/A	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Purge Volume (ml)	N/A	915	915	915	915	915	1,960	1,960
Vacuum (in. of Water)	N/A	0	0	0	0	0	0	0
Injection Volume (ul)	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Dilution Factor	1	1	1	1	1	1	1	1

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)
Dichlorodifluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.50	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.80	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.06	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.02	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.04	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.10	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.08	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.10	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.18	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.02	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.004	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.00	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.03	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.50	ND	ND	ND	ND	ND	ND	ND	ND
m/p-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	1.00	ND	ND	ND	ND	ND	ND	ND	ND
TPH-g	10.00	ND	ND	ND	ND	ND	ND	ND	ND
Isobutane (Tracer Gas)	1.00	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = Below Listed Reporting Limit

OPTIMAL TECHNOLOGY
Specializing in Environmental Field Services

SOIL VAPOR RESULTS

Site Name: 9001, 9015 & 9019 Long Beach Bl., South Gate, CA **Lab Name:** Optimal Technology **Date:** 2/20/19
Analyst: J. Rice **Collector:** J. Rice **Inst. ID:** Agilent 6890N
Method: Modified EPA 8260B **Detector:** Agilent 5973N Mass Spectrometer **Page:** 2 of 2

SAMPLE ID	SV-8	SV-9	SV-10	SV-10 Dup				
Sampling Depth (Ft.)	5.0	5.0	5.0	5.0				
Purge Volume (ml)	1,960	1,960	1,960	1,960				
Vacuum (in. of Water)	0	0	0	0				
Injection Volume (ul)	50,000	50,000	50,000	50,000				
Dilution Factor	1	1	1	1				

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)				
Dichlorodifluoromethane	1.00	ND	ND	ND	ND				
Chloroethane	1.00	ND	ND	ND	ND				
Trichlorofluoromethane	1.00	ND	ND	ND	ND				
Freon 113	1.00	ND	ND	ND	ND				
Methylene Chloride	0.50	ND	ND	ND	ND				
1,1-Dichloroethane	0.80	ND	ND	ND	ND				
Chloroform	0.06	ND	ND	ND	ND				
1,1,1-Trichloroethane	1.00	ND	ND	ND	ND				
Carbon Tetrachloride	0.02	ND	ND	ND	ND				
1,2-Dichloroethane	0.04	ND	ND	ND	ND				
Trichloroethene (TCE)	0.10	ND	ND	ND	ND				
1,1,2-Trichloroethane	0.08	ND	ND	ND	ND				
Tetrachloroethene (PCE)	0.10	ND	ND	ND	ND				
1,1,1,2-Tetrachloroethane	0.18	ND	ND	ND	ND				
1,1,2,2-Tetrachloroethane	0.02	ND	ND	ND	ND				
Vinyl Chloride	0.004	ND	ND	ND	ND				
Acetone	1.00	ND	ND	ND	ND				
1,1-Dichloroethene	1.00	ND	ND	ND	ND				
trans-1,2-Dichloroethene	1.00	ND	ND	ND	ND				
2-Butanone (MEK)	1.00	ND	ND	ND	ND				
cis-1,2-Dichloroethene	1.00	ND	ND	ND	ND				
Cyclohexane	1.00	ND	ND	ND	ND				
Benzene	0.03	ND	ND	ND	ND				
4-Methyl-2-Pentanone	1.00	ND	ND	ND	ND				
Toluene	1.00	ND	ND	ND	ND				
Chlorobenzene	1.00	ND	ND	ND	ND				
Ethylbenzene	0.50	ND	ND	ND	ND				
m/p-Xylene	1.00	ND	ND	ND	ND				
o-Xylene	1.00	ND	ND	ND	ND				
TPH-g	10.00	ND	ND	ND	ND				
Isobutane (Tracer Gas)	1.00	ND	ND	ND	ND				

Note: ND = Below Listed Reporting Limit

OPTIMAL TECHNOLOGY
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CHAIN OF CUSTODY FORM

Site Name/Number		PO# / Project Ref#	
Site Address	**9001, 9015 & 9019 Long Beach Bl., South Gate, CA**		
Company Name			
Contact Person(s):		Phone#	Email:
Comments:			

				TESTS REQUIRED (please mark with an "X")			
Sample Identification	Sampling Device	Date Collected	Time Collected	**Soil Gas Mod 8260B**	**Soil Gas Mod 8021B**	**Soil Gas Mod 8015**	**Notes**
BLANK-1	Syringe	2/20/19	10:35 AM	x			
SV-1	Syringe	2/20/19	11:03 AM	x			
SV-2	Syringe	2/20/19	11:20 AM	x			
SV-3	Syringe	2/20/19	11:38 AM	x			
SV-4	Syringe	2/20/19	12:00 PM	x			
SV-5	Syringe	2/20/19	12:15 PM	x			
SV-6	Syringe	2/20/19	12:36 PM	x			
SV-7	Syringe	2/20/19	12:55 PM	x			
SV-8	Syringe	2/20/19	1:11 PM	x			
SV-9	Syringe	2/20/19	1:30 PM	x			
SV-10	Syringe	2/20/19	1:50 PM	x			
SV-10 Dup	Syringe	2/20/19	1:50 PM	x			

Collected & Tested by:

John Rice

1667 Cross Bridge Place, Thousand Oaks, CA 91362 • Toll Free (877) SOIL GAS (764-5427) • (818) 734-6230 • Fax (818) 734-6235



Additional Phase II Environmental Site Assessment

9019 Long Beach Boulevard, South Gate, California

prepared for
City of South Gate
8650 California Avenue
South Gate, CA 90280

prepared by
Rincon Consultants, Inc.

January 28, 2020

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

213 788 4842
FAX 908 2200

info@rinconconsultants.com
www.rinconconsultants.com

January 28, 2020
Project 18-05744

Alex Lawrence
RSG
17872 Gillette Avenue, Suite 350
Irvine, California 92614
Via email: alawrence@webrsg.com

Subject: **Additional Phase II Environmental Site Assessment Report**
9019 Long Beach Boulevard
South Gate, California 90280

Dear Ms. Lawrence:

This report presents the findings of an Additional Phase II Environmental Site Assessment (ESA) completed by Rincon Consultants, Inc. for the subject property referenced above. The Phase II ESA was performed for the City of South Gate by Rincon Consultants, Inc. The work was conducted based on our Phase I and II ESA, and our Additional Phase II ESA proposal dated May 9, 2019. This Additional Phase II ESA includes the results of soil matrix sampling conducted at the project site.

Thank you for selecting Rincon for this project. If you have any questions, or if we can be of any future assistance, please contact us.

Sincerely,
RINCON CONSULTANTS, INC.

Devin Cheyne
Environmental Scientist

Gib Fates, PG
Principal

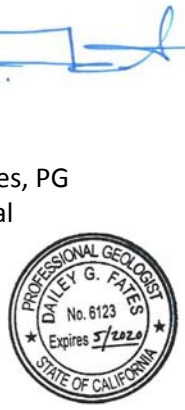


Table of Contents

Executive Summary 1

Introduction 1
Scope of Work 3

Sampling Methodology 3
Soil Matrix Sampling 3

Laboratory Analysis 4

Soil Matrix Sampling Results 4
9019 Long Beach Boulevard 4

Conclusions & Recommendations 5

Limitations 6

References 6

Figures

Figure 1 Vicinity Map
Figure 2 Sample Location Map
Figure 3 0.5-1 Feet bgs Lead Concentrations Map

Tables

Table 1 Soil Matrix Analytical Summary – Metals
Table 2 Soil Matrix Analytical Summary – TPH

Appendices

Appendix A Soil Matrix Laboratory Report

Executive Summary

This report presents the results of an additional Phase II Environmental Site Assessment (ESA) for the subject property located at 9019 Long Beach Boulevard, South Gate, California (Figure 1, Vicinity Map). The 9019 Long Beach Boulevard site is being considered for purchase by the City of South Gate. The Phase II ESA was performed by Rincon Consultants, Inc. (Rincon) for the City of South Gate. The current work was conducted based on the findings of an earlier Phase I ESA conducted by Rincon at the adjacent properties located at 9001 and 9015 Long Beach Boulevard, South Gate, California on January 24, 2019, and an earlier phase II ESA conducted by Rincon at 9001, 9015 and 9019 Long Beach Boulevard on June 21, 2019. The Phase I ESA report identified the following Potential Recognized Environmental Conditions in connection with the subject property:

- 9019 Long Beach Boulevard: This property was identified as located adjacent to the south of the subject property in the Phase I ESA and was included in the sampling effort for the Phase II ESA conducted in June 2019 and this current Phase II ESA. A review of historical documents indicates the onsite presence of an automotive greasing and "gas & oil" facility in 1950, and an automotive repair from 1970 through the present day.

Based on the finding of the Phase I ESA, Rincon performed a Phase II ESA. On February 20, 2019, Rincon mobilized to the project site to advance a total of five borings, RB6-RB10, to a depth of five feet below ground surface (bgs). Soil matrix samples were collected at 0.5 and 5 feet bgs and analyzed for total petroleum hydrocarbons (TPH) by EPA Method 8015M, and CAM 17 Metals by EPA Method 6010B/7471A/7470A. Following the soil matrix sampling, temporary soil vapor probes SV6-SV10 were installed to a depth of five feet bgs. Soil vapor samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B.

Based on the metals results of the soil matrix sampling effort, Rincon completed eight additional soil borings at the site to the north and south of RB7 and RB9 on April 18, 2019. The borings were advanced to five feet bgs, and samples were collected at 1, 3 and 5 feet bgs. The samples from 1 and 3 feet bgs from select borings were analyzed for metals and TPH; the 5-foot samples were held pending results of the shallow analyses.

With the exception of arsenic, lead, and thallium none of the metals detected in the soil matrix samples analyzed exceeded their respective San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for commercial and/or residential land uses. While arsenic was detected at concentrations exceeding its ESL, the reported concentrations were within naturally occurring background concentrations in California soils.

Lead was detected in all the samples analyzed from the site, at concentrations ranging from 1.34 milligrams per kilogram (mg/kg) to 1,600 mg/kg. Concentrations of lead detected in samples RB7-0.5, RB8-0.5, and RB9-0.5 were above the trigger level for performing soluble threshold limit concentration (STLC) tests (10-times the STLC of 5 milligrams per liter [mg/l], or 50 mg/kg). Two of the three STLC tests (RB7-0.5 and RB9-0.5) were above 5 mg/L, classifying the soil in those locations as California, non-Resource Conservation and Recovery Act (RCRA) hazardous waste. One sample, RB7-S2-1, had a detected total lead concentration of 1,600 mg/kg, which exceeded the total threshold level concentration (TTLC) for lead of 1,000 mg/kg, thus classifying it as a California non-

RCRA hazardous waste. That sample had a toxicity characteristic leaching procedure (TCLP) concentration for lead of 0.801 mg/L; therefore, the sample is not considered RCRA hazardous waste.

Thallium was detected above the residential ESL in 8 of the 18 soil matrix samples analyzed.

TPH as gasoline (TPHg) was not detected in any of the soil matrix samples analyzed from the site. TPH as diesel (TPHd) was detected in two samples at 3.03 mg/kg and 6 mg/kg, below the Los Angeles Regional Water Quality Control Board (LARWQCB) soil screening levels (SSLs). TPH as oil (TPHo) was detected in 8 samples analyzed, from 5.53 mg/kg to 10,000 mg/kg. One concentration of TPHo (RB9-0.5) was detected at a concentration equal to the SSL for soil between 20 and 150 feet above groundwater.

No VOCs were detected in any of the soil vapor samples analyzed. Therefore, no further action was recommended for soil vapor at the subject property.

The June 21, 2019 Phase II concluded the following:

- TPHo was elevated in one sample, RB9-0.5. However, this area of elevated TPHo appears to have been delineated.
- Detections of thallium in 8 of the 18 samples analyzed were present at levels exceeding the Residential ESL on the parcel at 9019 Long Beach Boulevard; because such elevated levels can often be an artifact of the EPA Method 6010 analytical methodology, we recommended that future metals testing be performed to report thallium levels using EPA Method 6020.
- Lead detected in the soil matrix samples appears to be elevated in the shallow samples, the elevated lead has not been delineated laterally. Therefore, we recommended additional step-out borings to delineate the horizontal impact of elevated lead in shallow soils. Soils at three of these locations would be classified as non-RCRA hazardous waste for the purposes of disposal.

In an attempt to delineate the elevated lead at the site, Rincon mobilized to the project site on December 27, 2019 to advance a total of 10 additional borings to a depth of 5 feet bgs using a Geoprobe rig. Soil matrix samples were collected at 1, 3, and 5 feet bgs from each of the borings. The samples from 1 and 3 feet bgs from all borings were analyzed for TPHo by EPA Method 8015M, and Lead by EPA Method 6010B. The 5-foot samples were held pending results of the shallow analyses.

Based on the assessments completed to date we have concluded the following:

- The area of TPHo exceeding soil screening criteria appears to have been delineated and is limited to one location on the site: RB9 at a depth of 0.5 ft. bgs.
- Lead concentrations are elevated at levels above the ESL for residential properties in shallow soils in 4 of the 22 soil sampling locations at this property. Lead concentrations are elevated at levels considered California Non-RCRA hazardous waste for the purposes of disposal in 4 of the 22 sample locations. Based on the site assessments completed, the lead contamination is vertically and laterally delineated and appears to be concentrated in the top one foot of the site in the northern and central portion of the property. We have estimated the volume of lead-impacted soil in this area to be approximately 250 cubic yards, encompassing approximately 150 cubic yards of soil exceeding the ESL for residential properties, and approximately 100 cubic yards which would be considered California Non-RCRA hazardous waste if excavated.

- Detections of thallium in 8 of the 18 soil samples analyzed were present at levels exceeding the Residential ESL; in our experience, such elevated levels can often be an artifact of the EPA Method 6010 analytical methodology. During remediation, thallium should be tested by EPA Method 6020 to verify the concentration of thallium at the site.
- Prior to redevelopment, the City of South Gate may consider approaching a regulatory agency for voluntary oversite of the remediation of the lead and TPH impacts at the subject property. The City should also consider preparing a soil management plan for the site to help guide decision-making and soil handling during redevelopment activities.

Introduction

This report presents the results of an additional Phase II Environmental Site Assessment (ESA) for the subject property located at 9019 Long Beach Boulevard, South Gate, California (Figure 1, Vicinity Map). The additional Phase II ESA was performed by Rincon Consultants, Inc. (Rincon) for the City of South Gate.

The work was conducted based on the findings of the Phase II site assessment previously conducted by Rincon Consultants Inc. dated June 21, 2019.

Additional step-out borings were recommended to delineate the horizontal impact of elevated lead and total petroleum hydrocarbons (THP) in shallow soils.

Scope of Work

The following tasks were performed as part of this Phase II ESA:

- **Health and Safety Plan**. A Health and Safety Plan was developed for the Phase II ESA sampling personnel. Rincon's Health and Safety Plan outlines the measures to be followed to minimize potential chemical exposure to onsite workers and the public. This document was prepared prior to the commencement of field work. This document is required by Federal law.

- **Utility Notification.** Prior to the commencement of drilling activities, planned soil boring locations at the project site were pre-marked and Underground Service Alert (USA) utility marking service was contacted to mark areas where underground public utilities might be located in the drilling areas. California law requires this notification.

- **Soil matrix Sampling and Testing.** Soil matrix sampling and laboratory analytical testing was conducted as described in this report.

- **Reporting.** Preparation of this report documenting the findings and conclusions of the investigations completed.

Sampling Methodology

Soil Matrix Sampling

On December 27, 2019, Rincon mobilized to the project site to advance a total of 10 borings to a depth of 5 feet below ground surface (bgs) using a Geoprobe rig. The borings were completed by Choice Drilling. In each of the ten borings (RB11-RB20) advanced at the site, soil matrix samples were collected at 1, 3, and 5 feet bgs.

The sampling rig hydraulically drives a rod into the ground. When the target soil sampling depth is reached, a soil sampler is attached to the end of the rod. The soil sampler consists of a 3.25-inch diameter tube equipped with acetate liners. By advancing this sampler into the soil, soil is forced into the opening of the sampling tube and a sample is obtained. Once the sampler is filled, it is retrieved, and the sample liner is removed. Soil from within the liner is used to log the borehole. A portion of the liner is then capped with plastic end caps, labeled, placed in a cooler chilled to 4-degrees Centigrade and transferred to the analytical laboratory.

The samples were transported under chain-of-custody documentation by courier to Enthalpy Analytical, a State-certified analytical laboratory in Orange, California. All soil sampling was performed under the oversight of a California Professional Geologist.

All soil matrix sample locations completed at the 9019 Long Beach property are depicted in Figure 2, Sample Location Map.

Laboratory Analysis

A total of 20 soil matrix samples collected from the project site were analyzed for the following:

- Total lead by EPA Method 6010B
- TPH-Oil by EPA Method 8015M

Soil samples from 1 and 3 feet bgs from all borings were analyzed for TPHo by EPA Method 8015M, and Lead by EPA Method 6010B. The 5-foot samples were held pending results of the shallow analyses.

Soil Matrix Sampling Results

A copy of the soil matrix analytical report is included in Appendix A. Detected concentrations of constituents in soil matrix were compared to the San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (SFBRWQCB ESLs). Detected concentrations of metals were also compared to the *Background Concentrations of Trace and Major Elements in California Soils* (Kearney, 1996). Detected concentrations of TPH were compared to the Los Angeles Regional Water Quality Control Board's Soil Screening Levels (LARWQCB SSLs).

The lithology from 0-5 feet bgs consists of light brown silty sand with some medium gravel, consistent with past assessments on the subject property. Samples were screened for volatile organic compounds (VOCs) with a photoionization detector (PID) in the field. No VOC detections were observed. No visual or olfactory indications of impacted soil were noted in the field.

Lead

Metals analytical results are summarized in Table 1.

Lead was detected in all the samples analyzed, with reported concentrations ranging from 5.8 milligrams per kilogram (mg/kg) to 102 mg/kg. Of the 20 samples analyzed in this sampling event, one reported at concentrations that exceeded either the commercial or residential ESL for lead.

Since two of the detected concentrations of total lead exceeded 10-times the associated Soluble Threshold Limit Concentration (STLC), which is used for determining hazardous waste characterization in California under California Code of Regulations (CCR) Title 22, Section 66261.24, an STLC extraction (using the Waste Extraction Test [WET] method) was completed by the laboratory and analyzed to evaluate the soluble component of lead in the samples. In addition, if: 1) the metal's Total Threshold Limit Concentration (TTLC) was exceeded; or 2) its concentration was greater than 20-times its associated Toxicity Characteristic Leaching Procedure (TCLP) limit (a testing methodology to determine if a solid waste is considered hazardous under the Resource Conservation and Recovery Act [RCRA]); or 3) WET results exceeded the STLC, a TCLP extraction was completed and the respective constituent(s) were analyzed in the solution.

Concentrations of total lead detected in samples RB14-1, and RB18-1 were above the trigger level for performing STLC tests. One of the two STLC tests (RB18-1) was above 5 milligram per liter (mg/L,) classifying soil in that location as California, non-RCRA hazardous waste. The previous assessment soil samples had a TCLP for lead of 0.801 mg/L at nearby location RB7-S2; therefore, the soil in this vicinity would not be considered a RCRA hazardous waste if excavated.

TPH

TPH analytical results are summarized in Table 2.

TPH as oil was detected in 16 of the 20 samples analyzed, with reported concentrations ranging from 32 mg/kg to 2,100 mg/kg. All concentrations of TPHo were below the LARWQCB SSL of 10,000 mg/kg for soil between 20 and 150 feet above groundwater.

Conclusions & Recommendations

Based on the recent Phase II ESA, lead concentrations were detected at levels that trigger STLC analyses in 2 of the 10 sampling locations. Based on these additional STLC analyses, soil at one of these locations would be classified as non-RCRA hazardous waste for the purposes of disposal. TPHo concentrations were all below the LARWQCB SSL.

Based on the assessments completed to date we have concluded the following:

- The area of TPHo exceeding soil screening criteria appears to have been delineated and is limited to one location on the site: RB9 at a depth of 0.5 ft. bgs.
- Lead concentrations are elevated at levels above the ESL for residential properties in shallow soils in 4 of the 22 soil sampling locations at this property. Lead concentrations are elevated at levels that would be considered California Non-RCRA hazardous waste in 4 of the 22 sample locations for the purposes of disposal. Based on the site assessments completed, the lead contamination is vertically and laterally delineated and appears to be concentrated in the top one foot of the site in the northern and central portion of the property. We have estimated the volume of lead-impacted soil in this area to be approximately 250 cubic yards, encompassing approximately 150 cubic yards of soil exceeding the environmental screening limit for residential properties, and approximately 100 cubic yards which would be considered California Non-RCRA hazardous waste if excavated.
- Detections of thallium in 8 of the 18 soil samples analyzed were present at levels exceeding the Residential ESL; in our experience, such elevated levels can often be an artifact of the EPA Method 6010 analytical methodology. During remediation, thallium should be tested by EPA Method 6020 to verify the concentration of thallium at the site.
- Prior to redevelopment, the City of South Gate may consider approaching a regulatory agency for voluntary oversite of the remediation of the lead and TPH impacts at the subject property. The City should also consider preparing a soil management plan for the site to help guide decision-making and soil handling during redevelopment activities.

Limitations

This report has been prepared for and is intended for the exclusive use of the City of South Gate. The contents of this report should not be relied upon by any other party without the written consent of Rincon Consultants, Inc.

This scope was not intended to completely establish the quantities and distribution of contaminants present at the project site or to determine the cost to remediate the project site. The concentrations of contaminants measured at any given location may not be representative of conditions at other locations. Further, conditions may change at any particular location as a function of time in response to natural conditions, chemical reactions and other events. Conclusions regarding the condition of the project site do not represent a warranty that all areas within the project site are similar to those sampled.

References

The following reference materials were used in the preparation of this Phase II ESA:

Previous Assessments

Priority I Environmental, *Phase I Environmental Site Assessment 9001, 9015, 9019 Long Beach Boulevard, South Gate, California,* December 2017.

Rincon Consultants*, Phase II ESA Report 9001, 9015,* 9019 Long Beach Boulevard, South Gate, California*,* June 2019

Screening Levels

Kearney, Background Concentrations of Trace and Major Elements in California Soils, University of California, 1996.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (revised January 2019).

Los Angeles Regional Water Quality Control Board Soil Screening Levels, May 1996.

Tables

Table 1
Summary of Soil Matrix Analytical Results - Metals
9019 Long Beach Boulevard, South Gate, California

Boring	Sample Depth (feet below grade)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead			Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
											Total (mg/kg)	Soluble STLC (mg/L)	Soluble TCLP (mg/L)								
			Results in mg/kg																		
RB6	0.5	2/20/2019	ND<0.37	2.86	118	ND<0.17	0.75	16.6	11.9	53.5	9.94	--	--	ND<0.039	1.58	22.3	ND<0.72	ND<0.13	ND<0.42	36.9	84.8
	5	2/20/2019	ND<0.37	ND<0.36	107	ND<0.17	0.78	14.8	9.22	15	1.34	--	--	ND<0.039	ND<0.13	11.8	ND<0.72	ND<0.13	ND<0.42	36.8	47.8
RB7	0.5	2/20/2019	ND<0.37	ND<0.36	138	ND<0.17	3.66	21	10.7	60.1	69.9	6.06	--	ND<0.039	1.63	26.3	ND<0.72	ND<0.13	ND<0.42	45.1	168
	5	2/20/2019	ND<0.37	ND<0.36	163	ND<0.17	1.06	21.1	13.5	23.3	1.55	--	--	ND<0.039	ND<0.13	17.5	ND<0.72	ND<0.13	ND<0.42	52.4	70.1
RB7-N1	1	4/18/2019	ND<0.37	3.76	210	ND<0.17	0.73	24.7	15.3	27.4	7.42	--	--	ND<0.039	ND<0.13	16.8	ND<0.72	ND<0.13	7.04	49.8	75.6
	3	4/18/2019	ND<0.37	ND<0.36	71.2	ND<0.17	ND<0.21	12	8.06	9.37	2.87	--	--	ND<0.039	ND<0.13	7.38	ND<0.72	ND<0.13	4.29	32.1	34.6
RB7-S1	1	4/18/2019	ND<0.37	2.95	249	ND<0.17	0.92	25.4	13.9	40.6	102	--	--	ND<0.039	ND<0.13	17.3	ND<0.72	ND<0.13	5.81	52	162
	3	4/18/2019	ND<0.37	3.31	166	ND<0.17	0.72	23	14.4	26.5	5.38	--	--	ND<0.039	1.02	15.7	ND<0.72	ND<0.13	6.82	46.2	60.9
RB7-S2	1	4/18/2019	--	--	--	--	--	--	--	--	1,600	--	0.801	--	--	--	--	--	--	--	--
	3	4/18/2019	--	--	--	--	--	--	--	--	4.49	--	--	--	--	--	--	--	--	--	--
RB8	0.5	2/20/2019	ND<0.37	ND<0.36	152	ND<0.17	0.98	18.3	10.9	26.4	56	2.85		ND<0.039	ND<0.13	16.6	ND<0.72	ND<0.13	ND<0.42	44.7	114
	5	2/20/2019	ND<0.37	ND<0.36	115	ND<0.17	0.66	14.4	8.7	20.8	10.9	--	--	0.16	1.25	16.3	ND<0.72	ND<0.13	ND<0.42	36	68.7
RB9	0.5	2/20/2019	ND<0.37	ND<0.36	93.3	ND<0.17	2.29	15.3	6.02	29.2	58.9	7.07	--	ND<0.039	2.18	16.2	ND<0.72	ND<0.13	ND<0.42	33	76.9
	5	2/20/2019	ND<0.37	ND<0.36	165	ND<0.17	0.99	19.7	12	23.1	3.87	--	--	ND<0.039	1.37	15.6	ND<0.72	ND<0.13	ND<0.42	48.2	63
RB9-N1	1	4/18/2019	ND<0.37	11.1	165	ND<0.17	0.93	21.4	11.8	29.2	142	--	--	ND<0.039	ND<0.13	14.7	ND<0.72	ND<0.13	5.32	44.7	81.8
	3	4/18/2019	ND<0.37	6.63	215	ND<0.17	0.91	25.9	18	34.1	7.73	--	--	ND<0.039	3.33	19	ND<0.72	ND<0.13	6.39	55.2	69.7
RB9-N2	1	4/18/2019	--	--	--	--	--	--	--	--	131	--	--	--	--	--	--	--	--	--	--
	3	4/18/2019	--	--	--	--	--	--	--	--	5.29	--	--	--	--	--	--	--	--	--	--
RB9-S1	1	4/18/2019	ND<0.37	2.9	165	ND<0.17	0.63	19.2	11.3	24.6	65.1	--	--	ND<0.039	ND<0.13	13.4	ND<0.72	ND<0.13	4.78	44.3	87.2
	3	4/18/2019	ND<0.37	3.08	195	ND<0.17	0.65	20.4	12.1	24.4	10.7	--	--	ND<0.039	ND<0.13	14.4	ND<0.72	ND<0.13	5.5	44.3	60
RB9-S2	1	4/18/2019	--	--	--	--	--	--	--	--	254	--	--	--	--	--	--	--	--	--	--
	3	4/18/2019	--	--	--	--	--	--	--	--	7.49	--	--	--	--	--	--	--	--	--	--
RB10	0.5	2/20/2019	ND<0.37	ND<0.36	142	ND<0.17	0.99	20.6	11.5	26.6	13.8	--	--	ND<0.039	ND<0.13	16.3	ND<0.72	ND<0.13	ND<0.42	47.4	84
	5	2/20/2019	ND<0.37	ND<0.36	185	ND<0.17	0.99	20.7	12.1	24.4	2.81	--	--	ND<0.039	ND<0.13	16.6	ND<0.72	ND<0.13	ND<0.42	45.5	66.7
RB11	1	12/29/2019	--	--	--	--	--	--	--	--	12.2	--	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	12.6	--	--	--	--	--	--	--	--	--	--
RB12	1	12/29/2019	--	--	--	--	--	--	--	--	19.4	--	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	6.8	--	--	--	--	--	--	--	--	--	--
RB13	1	12/29/2019	--	--	--	--	--	--	--	--	36.1	--	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	9.15	--	--	--	--	--	--	--	--	--	--
RB14	1	12/29/2019	--	--	--	--	--	--	--	--	56.1	3.57	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	8.33	--	--	--	--	--	--	--	--	--	--
RB15	1	12/29/2019	--	--	--	--	--	--	--	--	17.8	--	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	16.8	--	--	--	--	--	--	--	--	--	--
RB16	1	12/29/2019	--	--	--	--	--	--	--	--	10.5	--	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	5.8	--	--	--	--	--	--	--	--	--	--
RB17	1	12/29/2019	--	--	--	--	--	--	--	--	8.51	--	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	6.51	--	--	--	--	--	--	--	--	--	--
RB18	1	12/29/2019	--	--	--	--	--	--	--	--	102	17.8	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	6.9	--	--	--	--	--	--	--	--	--	--
RB19	1	12/29/2019	--	--	--	--	--	--	--	--	8.85	--	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	4.74	--	--	--	--	--	--	--	--	--	--
RB20	1	12/29/2019	--	--	--	--	--	--	--	--	13.4	--	--	--	--	--	--	--	--	--	--
	3	12/29/2019	--	--	--	--	--	--	--	--	7.98	--	--	--	--	--	--	--	--	--	--
Trigger Level for performing CA-WET (10 x STLC)			150	50	1,000	7.5	10	50	800	250	50	NA	NA	2.0	3,500	200	10	50	70	240	2,500
Trigger Level for performing TCLP (20 x TCLP)			NA	100	2,000	NE	20	100	NE	NE	100	NA	NA	4.0	NE	NE	20	100	NE	NE	NE
Background Concentration			0.15 - 1.95	0.6 - 11	133 - 1,400	0.25 - 2.70	0.05 - 1.70	23 - 1,579	2.7 - 46.9	9.1 - 96.4	12.4 - 97.1	NA	NA	0.05 - 0.90	0.1 - 9.6	9.0 - 509	0.015 - 0.430	0.10 - 8.3	0.17- 1.1	39 - 288	88 - 236
ESL (Residential)			11	0.067	15,000	16	78	NE	23	3,100	80	NA	NA	13	390	820	390	390	0.78	390	23,000
ESL (Commercial)			160	3.60	220,000	230	1100	NE	350	47,000	320	NA	NA	190	5800	11,000	5,800	5,800	12	5,800	350,000
Dispose Offsite as Cal-Haz Waste	STLC (mg/L)		15	5	100	0.75	1	5	80	25	5	5.0	NA	0.2	350	20	1	5	7	24	250
	TTLC		500	500	10,000	75	100	2,500	2,500	8,000	1,000	NA	NA	20	3,500	2,000	100	500	700	2,400	5,000
Dispose Offsite as RCRA-Haz Waste	TCLP (mg/L)		NE	5	100	NE	1	5	NE	NE	5	NA	5.0	0.2	NE	NE	1	5	NE	NE	NE

Definitions:
bold - Constituent detected above laboratory reporting limit
shaded - Constituent detected above a screening level
< - Constituent not detected above associated laboratory reporting limit
Background Concentration - Kearney, Background Concentrations of Trace and Major Elements in California Soils, University of California, 1996
ESL - San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (revised January 2019); Summary of Soil ESLs table for human health direct exposures.
Metals - As defined in California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24 (seventeen metals listed in Table II); known as Title 22 CAM 17
Metals analyzed by EPA method 6010B
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
"--" - Not sampled
NE - Screening level not established
NA- Not Applicable
STLC - Soluble Threshold Limit Concentrations (California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24) (Laboratory Preparation Method T22.11.5 All)
TCLP - Toxicity Characteristic Leaching Procedure (Code of Federal Regulations, Title 40, Chapter I, Subchapter I, Part 261, Section 261.24) (Laboratory Preparation Method EPA 1311)
TTLC - Total Threshold Limit Concentration (California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24)

Table 2
Summary of Soil Matrix Analytical Results - TPH
9019 Long Beach Boulevard, South Gate, California

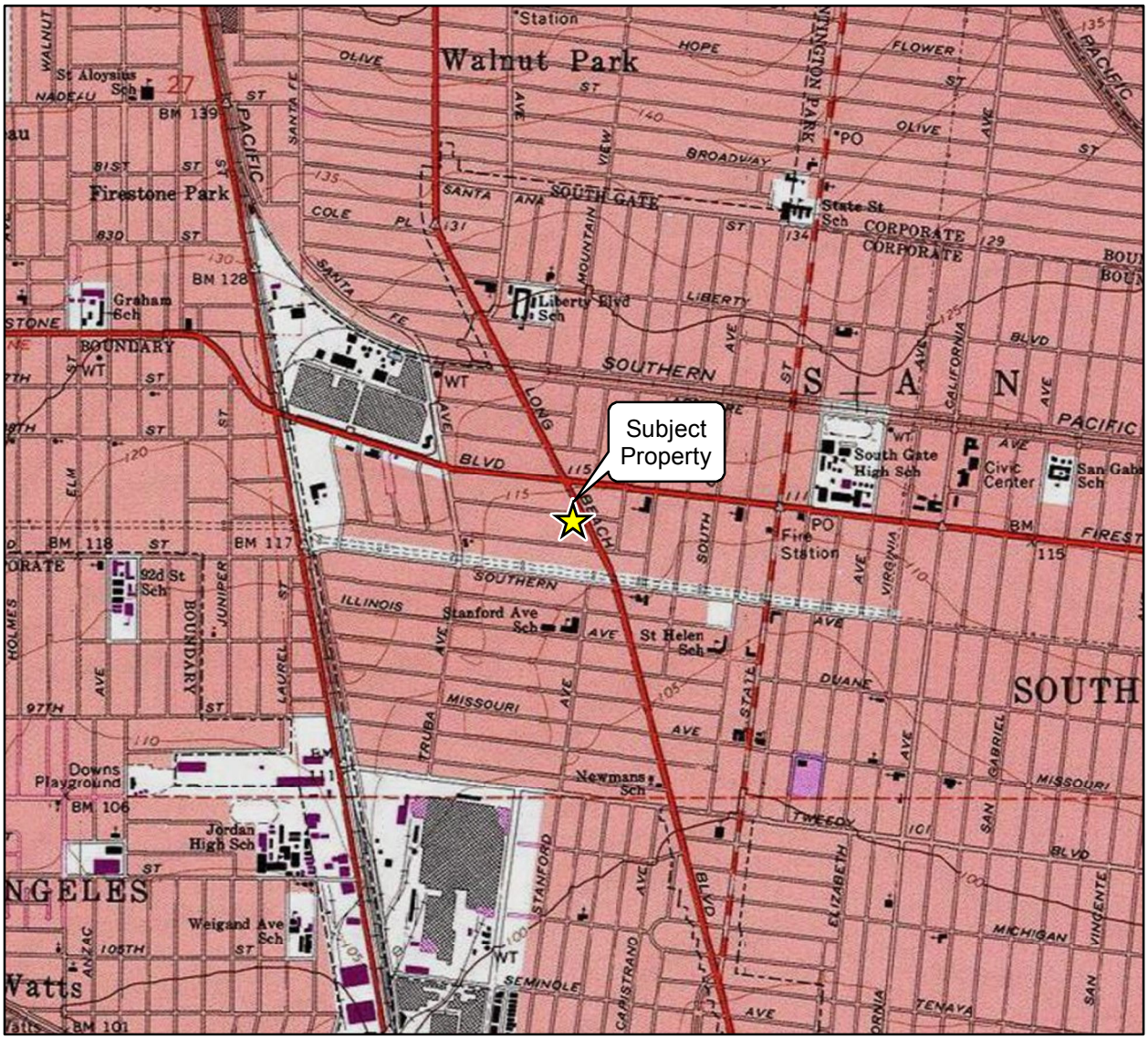
Boring	Sample Depth (feet below grade)	Sample Date	TPH gasoline (C6 to C12)	TPH diesel (C13 to C22)	TPH oil (C23 to C44)
			Results in mg/kg		
RB6	0.5	2/20/2019	ND<250	ND<250	**420**
	5	2/20/2019	ND<10	ND<10	ND<10
RB7	0.5	2/20/2019	ND<50	ND<50	**110**
	5	2/20/2019	ND<10	ND<10	ND<10
RB7-N1	1	4/18/2019	ND<0.239	ND<0.022	ND<2.1
	3	4/18/2019	ND<0.239	ND<0.022	ND<2.1
RB7-S1	1	4/18/2019	ND<0.239	ND<0.55	ND<52.5
	3	4/18/2019	ND<0.239	ND<0.022	ND<2.1
RB8	0.5	2/20/2019	ND<100	ND<100	**160**
	5	2/20/2019	ND<200	ND<200	**350**
RB9	0.5	2/20/2019	ND<500	ND<500	**10,000**
	5	2/20/2019	ND<10	ND<10	ND<10
RB9-N1	1	4/18/2019	ND<0.239	ND<0.55	ND<52.5
	3	4/18/2019	ND<0.239	**3.03**	ND<2.1
RB9-S1	1	4/18/2019	ND<0.239	ND<0.22	ND<21
	3	4/18/2019	ND<0.239	**6**	**5.53**
RB10	0.5	2/20/2019	ND<100	ND<100	**320**
	5	2/20/2019	ND<10	ND<10	**10**
RB11	1	12/29/2019	--	--	**440**
	3	12/29/2019	--	--	**190**
RB12	1	12/29/2019	--	--	**210**
	3	12/29/2019	--	--	ND<10
RB13	1	12/29/2019	--	--	**1100**
	3	12/29/2019	--	--	**72**
RB14	1	12/29/2019	--	--	**100**
	3	12/29/2019	--	--	**32**
RB15	1	12/29/2019	--	--	**2100**
	3	12/29/2019	--	--	**34**
RB16	1	12/29/2019	--	--	**100**
	3	12/29/2019	--	--	ND<10
RB17	1	12/29/2019	--	--	**88**
	3	12/29/2019	--	--	ND<10
RB18	1	12/29/2019	--	--	**310**
	3	12/29/2019	--	--	**56**
RB19	1	12/29/2019	--	--	**76**
	3	12/29/2019	--	--	ND<10
RB20	1	12/29/2019	--	--	**430**
	3	12/29/2019	--	--	**41**
ESL (Residential)			430	260	12,000
ESL (Commercial/Industrial)			2,000	1,200	180,000
LA RWQCB SSL			500	1,000	10,000

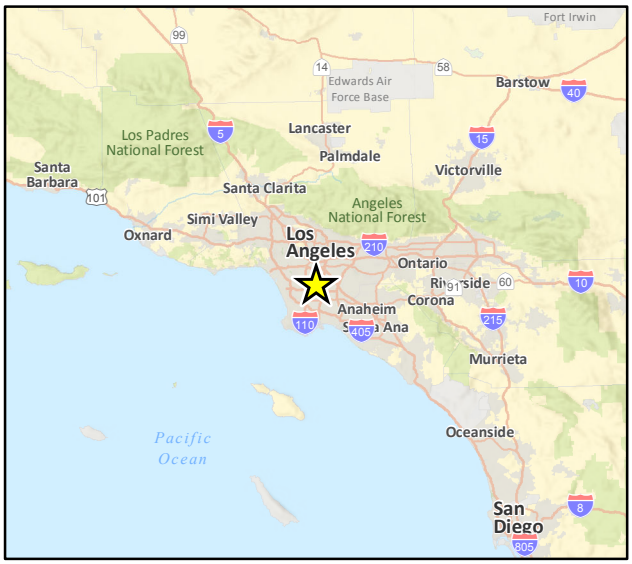
Definitions:
bold - Constituent detected above laboratory reporting limit
shaded - Constituent detected above a screening level
TPH - Total Petroleum Hydrocarbons
mg/kg - milligrams per kilogram
"--" - Not tested
ND - not detected above the method detection limit

LA RWQCB SSL - Los Angeles RWQCB Maximum Soil Screening Levels (SSLs) for TPH and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) Above Drinking Water Aquifers, for soil between 20 and 150 feet above groundwater (Table 4-1), May 1996

ESL - San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (revised January 2019), Summary of Soil ESLs table for human health direct exposures
TPH analyzed by EPA Method 8015

Figures





Vicinity Map

Figure 1



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Sample Location Map

Figure 2



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0.5-1 feet bgs Lead Concentrations Map

Figure 3

Appendix A

Soil Matrix Laboratory Report

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MONTROSE ENVIRONMENTAL

Client: Rincon Consultants - LA
Address: 250 E. 1st Street
Suite 1400
Los Angeles, CA 90012
Attn: Devin Cheyne

Comments: 9019 N. Long Beach Blvd.
17-03990

Lab Request: 423303
Report Date: 01/08/2020
Date Received: 12/30/2019
Client ID: 15729

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID	Sample #	Client Sample ID
423303-001	RB11-1	423303-025	RB19-1
423303-002	RB11-3	423303-026	RB19-3
423303-003	RB11-5	423303-027	RB19-5
423303-004	RB12-1	423303-028	RB20-1
423303-005	RB12-3	423303-029	RB20-3
423303-006	RB12-5	423303-030	RB20-5
423303-007	RB13-1		
423303-008	RB13-3		
423303-009	RB13-5		
423303-010	RB14-1		
423303-011	RB14-3		
423303-012	RB14-5		
423303-013	RB15-1		
423303-014	RB15-3		
423303-015	RB15-5		
423303-016	RB16-1		
423303-017	RB16-3		
423303-018	RB16-5		
423303-019	RB17-1		
423303-020	RB17-3		
423303-021	RB17-5		
423303-022	RB18-1		
423303-023	RB18-3		
423303-024	RB18-5		

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:05 **Site:**
Sample #: **423303-001** **Client Sample #:** RB11-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**12.2**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**440**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:10 **Site:**
Sample #: **423303-002** **Client Sample #:** RB11-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**12.6**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**190**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:15 **Site:**
Sample #: **423303-003** **Client Sample #:** RB11-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:20 **Site:**
Sample #: **423303-004** **Client Sample #:** RB12-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**19.4**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**210**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:25 **Site:**
Sample #: **423303-005** **Client Sample #:** RB12-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**6.80**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*109*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:30 **Site:**
Sample #: **423303-006** **Client Sample #:** RB12-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:35 **Site:**
Sample #: **423303-007** **Client Sample #:** RB13-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**36.1**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**1100**	20	200	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*00*	*50-150*	*S2*

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:40 **Site:**
Sample #: **423303-008** **Client Sample #:** RB13-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**9.15**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**72**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*109*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:45 **Site:**
Sample #: **423303-009** **Client Sample #:** RB13-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:50 **Site:**
Sample #: **423303-010** **Client Sample #:** RB14-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**56.1**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**100**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*110*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:55 **Site:**
Sample #: **423303-011** **Client Sample #:** RB14-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**8.33**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**32**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*115*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:00 **Site:**
Sample #: **423303-012** **Client Sample #:** RB14-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:05 **Site:**
Sample #: **423303-013** **Client Sample #:** RB15-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**17.8**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**2100**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*98*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:10 **Site:**
Sample #: **423303-014** **Client Sample #:** RB15-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**16.8**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**34**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:15 **Site:**
Sample #: **423303-015** **Client Sample #:** RB15-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:20 **Site:**
Sample #: **423303-016** **Client Sample #:** RB16-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**10.5**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**100**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*119*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:25 **Site:**
Sample #: **423303-017** **Client Sample #:** RB16-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**5.80**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*115*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:30 **Site:**
Sample #: **423303-018** **Client Sample #:** RB16-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:35 **Site:**
Sample #: **423303-019** **Client Sample #:** RB17-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**8.51**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**88**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*117*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:40 **Site:**
Sample #: **423303-020** **Client Sample #:** RB17-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**6.51**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:45 **Site:**
Sample #: **423303-021** **Client Sample #:** RB17-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:00 **Site:**
Sample #: **423303-022** **Client Sample #:** RB18-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**102**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**310**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:05 **Site:**
Sample #: **423303-023** **Client Sample #:** RB18-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**6.90**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**56**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:10 **Site:**
Sample #: **423303-024** **Client Sample #:** RB18-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:15 **Site:**
Sample #: **423303-025** **Client Sample #:** RB19-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**8.85**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**76**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:20 **Site:**
Sample #: **423303-026** **Client Sample #:** RB19-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**4.74**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:25 **Site:**
Sample #: **423303-027** **Client Sample #:** RB19-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:30 **Site:**
Sample #: **423303-028** **Client Sample #:** RB20-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**13.4**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**430**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*104*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:35 **Site:**
Sample #: **423303-029** **Client Sample #:** RB20-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**7.98**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**41**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:40 **Site:**
Sample #: **423303-030** **Client Sample #:** RB20-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

QCBatchID: QC1213087 **Analyst:** rvenegas **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 12/31/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1213087MB1						
Lead	ND	mg/Kg		1		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213087LCS1											
Lead	100		101		mg/Kg	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213087MS1, QC1213087MSD1												**Source: 423303-001**
Lead	12.2	100	100	106	115	mg/Kg	94	103	8.1	75-125	20	

QCBatchID:	**QC1213207**	**Analyst:**	bmorris	**Method:**	EPA 8015M
Matrix:	Solid	**Analyzed:**	01/03/2020	**Instrument:**	SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1213207MB1						
ORO (C28 to C40)	ND	mg/Kg		10		
TPH (C10 to C28)	ND	mg/Kg		10		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1213207LCS1											
TPH (C10 to C28)	250		230		mg/Kg	92			60-133		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1213207MS1, QC1213207MSD1												**Source: 423303-001**
TPH (C10 to C28)	200	250	250	310	340	mg/Kg	44	56	9.2	70-130	20	M

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 1 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	9019 N Long Beach Blvd
Report To:	Devon Cheyre	Number:	17-03990
Email:	dcheyre@rinconconsultants.com	P.O. #:	
Address:	250 E 1st Street	Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Cheyre

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH - 0.1 8015	Analysis Request: Lead 6000-7000	Test Instructions / Comments
1	RB11-1	12-27-19	0805	Soil	1		X	X	
2	RB11-3		0810				X	V	
3	RB11-5		0815						Hold
4	RB12-1		0820				X	X	
5	RB12-3		0825				X	V	
6	RB12-5		0830						Hold
7	RB13-1		0835				X	X	
8	RB13-3		0840				X	X	
9	RB13-5		0845						Hold
10	RB14-1		0850				X	X	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devon Cheyre	Rincon Consultants	12-30-19 1220
1 Received By:		FERNANDO DIAZ	EA	12/30/19 1220
2 Relinquished By:		FERNANDO DIAZ	EA	12/30/19 1427
2 Received By:		Elizabeth Ramos	EA	12/30/19 14.27
3 Relinquished By:				
3 Received By:				

0.8/3.8

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 2 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Ramon Consultants	Name:	9019 N Long Beach Blvd
Report To:	Devin Chapel	Number:	17-03990
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Chapel

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH - Oil 8015M	Lead 6000-7000	Test Instructions / Comments
1	RB14-3	12-27-19	0855	Soil	1		X	X	
2	RB14-5		0900						Hold
3	RB15-1		0905				X	X	
4	RB15-3		0910				X	X	
5	RB15-5		0915						Hold
6	RB16-1		0920				X	X	
7	RB16-3		0925				X	X	
8	RB16-5		0930						Hold
9	RB17-1		0935				X	X	
10	RB17-3		0940				X	X	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devin Chapel	Ramon Consultants	12-30-19 1220
1 Received By:		Fernando Dua	EA	12/30/19 1220
2 Relinquished By:		Fernando Dua	EA	12/30/19 1427
2 Received By:		Elizabeth Donner	EA	12/30/19 14.27
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 3 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Kinnon Consultants	Name:	9019N Long Beach Blvd
Report To:	Devin Chaffe	Number:	17-03998
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Chaffe

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH-Oil 8015M	Lead 6000-7000	Test Instructions / Comments
1	RB17-5	12-27-19	0945	Soil	1				Hold
2	RB18-1		1000				X	X	
3	RB18-3		1005				X	X	
4	RB18-5		1010						Hold
5	RB19-1		1015				X	X	
6	RB19-3		1020				X	X	
7	RB19-5		1025						Hold
8	RB20-1		1030				X	X	
9	RB20-3		1035				X	X	
10	RB20-5		1040						Hold

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Devin Chaffe	Kinnon Consultants	12-30-19 1220
[1] Received By:		Fernando Dinn	EA	12/30/19 1220
[2] Relinquished By:		Fernando Dinn	EA	12/30/19 1427
[2] Received By:		Elizabeth Renner	EA	12/30/19 14:27
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants Project: 9019 N Long Beach Blvd.

Date Received: 12/30/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 3.8 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.8 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 12/30/19

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client: Rincon Consultants - LA
Address: 250 E. 1st Street
Suite 1400
Los Angeles, CA 90012
Attn: Devin Cheyne

Lab Request: 423303
Report Date: 01/15/2020
Date Received: 12/30/2019
Client ID: 15729

Comments: 9019 N. Long Beach Blvd.
17-03990

Supplemental Report 1 - STLC Lead results are now reported where requested.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID	Sample #	Client Sample ID
423303-001	RB11-1	423303-025	RB19-1
423303-002	RB11-3	423303-026	RB19-3
423303-003	RB11-5	423303-027	RB19-5
423303-004	RB12-1	423303-028	RB20-1
423303-005	RB12-3	423303-029	RB20-3
423303-006	RB12-5	423303-030	RB20-5
423303-007	RB13-1		
423303-008	RB13-3		
423303-009	RB13-5		
423303-010	RB14-1		
423303-011	RB14-3		
423303-012	RB14-5		
423303-013	RB15-1		
423303-014	RB15-3		
423303-015	RB15-5		
423303-016	RB16-1		
423303-017	RB16-3		
423303-018	RB16-5		
423303-019	RB17-1		
423303-020	RB17-3		
423303-021	RB17-5		
423303-022	RB18-1		
423303-023	RB18-3		
423303-024	RB18-5		

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:05 **Site:**
Sample #: **423303-001** **Client Sample #:** RB11-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**12.2**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**440**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:10 **Site:**
Sample #: **423303-002** **Client Sample #:** RB11-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**12.6**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**190**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:15 **Site:**
Sample #: **423303-003** **Client Sample #:** RB11-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:20 **Site:**
Sample #: **423303-004** **Client Sample #:** RB12-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**19.4**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**210**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:25 **Site:**
Sample #: **423303-005** **Client Sample #:** RB12-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**6.80**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*109*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:30 **Site:**
Sample #: **423303-006** **Client Sample #:** RB12-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:35 **Site:**
Sample #: **423303-007** **Client Sample #:** RB13-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**36.1**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**1100**	20	200	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*00*	*50-150*	*S2*

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:40 **Site:**
Sample #: **423303-008** **Client Sample #:** RB13-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**9.15**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**72**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*109*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:45 **Site:**
Sample #: **423303-009** **Client Sample #:** RB13-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:50 **Site:**
Sample #: **423303-010** **Client Sample #:** RB14-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**56.1**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 6010B *NELAC*	Prep Method: STLC					QCBatchID: QC1213574		
Lead	**3.57**	10	0.15	mg/L		01/15/20	KLN	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**100**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*110*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:55 **Site:**
Sample #: **423303-011** **Client Sample #:** RB14-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**8.33**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**32**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*115*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:00 **Site:**
Sample #: **423303-012** **Client Sample #:** RB14-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:05 **Site:**
Sample #: **423303-013** **Client Sample #:** RB15-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**17.8**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**2100**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*98*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:10 **Site:**
Sample #: **423303-014** **Client Sample #:** RB15-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**16.8**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**34**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:15 **Site:**
Sample #: **423303-015** **Client Sample #:** RB15-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:20 **Site:**
Sample #: **423303-016** **Client Sample #:** RB16-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**10.5**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**100**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*119*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:25 **Site:**
Sample #: **423303-017** **Client Sample #:** RB16-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**5.80**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*115*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:30 **Site:**
Sample #: **423303-018** **Client Sample #:** RB16-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:35 **Site:**
Sample #: **423303-019** **Client Sample #:** RB17-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**8.51**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**88**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*117*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:40 **Site:**
Sample #: **423303-020** **Client Sample #:** RB17-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**6.51**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:45 **Site:**
Sample #: **423303-021** **Client Sample #:** RB17-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:00 **Site:**
Sample #: **423303-022** **Client Sample #:** RB18-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**102**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 6010B *NELAC*	Prep Method: STLC					QCBatchID: QC1213574		
Lead	**17.8**	10	0.15	mg/L		01/15/20	KLN	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**310**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:05 **Site:**
Sample #: **423303-023** **Client Sample #:** RB18-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**6.90**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**56**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:10 **Site:**
Sample #: **423303-024** **Client Sample #:** RB18-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:15 **Site:**
Sample #: **423303-025** **Client Sample #:** RB19-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**8.85**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**76**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:20 **Site:**
Sample #: **423303-026** **Client Sample #:** RB19-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**4.74**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:25 **Site:**
Sample #: **423303-027** **Client Sample #:** RB19-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:30 **Site:**
Sample #: **423303-028** **Client Sample #:** RB20-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**13.4**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**430**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*104*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:35 **Site:**
Sample #: **423303-029** **Client Sample #:** RB20-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**7.98**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**41**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:40 **Site:**
Sample #: **423303-030** **Client Sample #:** RB20-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

QCBatchID: QC1213087 **Analyst:** rvenegas **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 12/31/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1213087MB1						
Lead	ND	mg/Kg		1		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213087LCS1											
Lead	100		101		mg/Kg	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213087MS1, QC1213087MSD1												**Source: 423303-001**
Lead	12.2	100	100	106	115	mg/Kg	94	103	8.1	75-125	20	

QCBatchID: QC1213207 **Analyst:** bmorris **Method:** EPA 8015M

Matrix: Solid **Analyzed:** 01/03/2020 **Instrument:** SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1213207MB1						
ORO (C28 to C40)	ND	mg/Kg		10		
TPH (C10 to C28)	ND	mg/Kg		10		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213207LCS1											
TPH (C10 to C28)	250		230		mg/Kg	92			60-133		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213207MS1, QC1213207MSD1												**Source: 423303-001**
TPH (C10 to C28)	200	250	250	310	340	mg/Kg	44	56	9.2	70-130	20	M

QCBatchID: QC1213574 **Analyst:** msanchez **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 01/15/2020 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1213574MB1					
Antimony	ND	mg/L		0.09	
Arsenic	ND	mg/L		0.03	
Barium	ND	mg/L		0.03	
Beryllium	ND	mg/L		0.015	
Cadmium	ND	mg/L		0.015	
Chromium	ND	mg/L		0.03	
Cobalt	ND	mg/L		0.015	
Copper	ND	mg/L		0.03	
Lead	ND	mg/L		0.015	
Molybdenum	ND	mg/L		0.03	
Nickel	ND	mg/L		0.06	
Selenium	ND	mg/L		0.03	
Silver		mg/L		0.015	
Thallium	ND	mg/L		0.15	
Vanadium	ND	mg/L		0.015	
Zinc	ND	mg/L		0.06	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213574LCS1, QC1213574LCSD1											
Antimony	20	20	21.3	19.8	mg/L	107	99	7	80-120	20	
Arsenic	20	20	20.9	19.3	mg/L	105	97	8	80-120	20	
Barium	20	20	20.9	19.1	mg/L	105	96	9	80-120	20	
Beryllium	20	20	18.0	18.0	mg/L	90	90	0	80-120	20	
Cadmium	20	20	19.2	17.9	mg/L	96	90	7	80-120	20	
Chromium	20	20	18.8	17.3	mg/L	94	87	8	80-120	20	
Cobalt	20	20	19.1	17.6	mg/L	96	88	8	80-120	20	
Copper	20	20	20.6	18.8	mg/L	103	94	9	80-120	20	
Lead	20	20	18.2	17.2	mg/L	91	86	6	80-120	20	
Molybdenum	20	20	21.4	19.8	mg/L	107	99	8	80-120	20	
Nickel	20	20	19.3	17.8	mg/L	97	89	8	80-120	20	
Selenium	20	20	18.7	17.8	mg/L	94	89	5	80-120	20	
Silver	5	5			mg/L				80-120	20	
Thallium	20	20	16.2	15.8	mg/L	81	79	2	80-120	20	L
Vanadium	20	20	21.7	19.9	mg/L	109	100	9	80-120	20	
Zinc	20	20	19.8	18.2	mg/L	99	91	8	80-120	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 1 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	9019 N Long Beach Blvd
Report To:	Devon Cheyre	Number:	17-03990
Email:	dcheyre@rinconconsultants.com	P.O. #:	
Address:	250 E 1st Street	Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Cheyre

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH - 0.1 8015	Analysis Request: Lead 6000-7000	Test Instructions / Comments
1	RB11-1	12-27-19	0805	Soil	1		X	X	
2	RB11-3		0810				X	V	
3	RB11-5		0815						Hold
4	RB12-1		0820				X	X	
5	RB12-3		0825				X	V	
6	RB12-5		0830						Hold
7	RB13-1		0835				X	X	
8	RB13-3		0840				X	X	
9	RB13-5		0845						Hold
10	RB14-1		0850				X	X	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devon Cheyre	Rincon Consultants	12-30-19 1220
1 Received By:		FERNANDO DIAZ	EA	12/30/19 1220
2 Relinquished By:		FERNANDO DIAZ	EA	12/30/19 1427
2 Received By:		Elizabeth Ramos	EA	12/30/19 14.27
3 Relinquished By:				
3 Received By:				

0.8/3.8

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 2 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Ramon Consultants	Name:	9019 N Long Beach Blvd
Report To:	Devin Chapel	Number:	17-03990
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Chapel

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH - Oil 8015M	Lead 6000-7000	Test Instructions / Comments
1	RB14-3	12-27-19	0855	Soil	1		X	X	
2	RB14-5		0900						Hold
3	RB15-1		0905				X	X	
4	RB15-3		0910				X	X	
5	RB15-5		0915						Hold
6	RB16-1		0920				X	X	
7	RB16-3		0925				X	X	
8	RB16-5		0930						Hold
9	RB17-1		0935				X	X	
10	RB17-3		0940				X	X	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devin Chapel	Ramon Consultants	12-30-19 1220
1 Received By:		Fernando Dua	EA	12/30/19 1220
2 Relinquished By:		Fernando Dua	EA	12/30/19 1427
2 Received By:		Elizabeth Donner	EA	12/30/19 14.27
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 3 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Kinnon Consultants	Name:	9019N Long Beach Blvd
Report To:	Devin Chaffe	Number:	17-03998
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Chaffe

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH-Oil 8015M	Lead 6000-7000	Test Instructions / Comments
1	RB17-5	12-27-19	0945	Soil	1				Hold
2	RB18-1		1000				X	X	
3	RB18-3		1005				X	X	
4	RB18-5		1010						Hold
5	RB19-1		1015				X	X	
6	RB19-3		1020				X	X	
7	RB19-5		1025						Hold
8	RB20-1		1030				X	X	
9	RB20-3		1035				X	X	
10	RB20-5		1040						Hold

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Devin Chaffe	Kinnon Consultants	12-30-19 1220
[1] Received By:		Fernando Dinn	EA	12/30/19 1220
[2] Relinquished By:		Fernando Dinn	EA	12/30/19 1427
[2] Received By:		Elizabeth Renner	EA	12/30/19 14:27
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants Project: 9019 N Long Beach Blvd.

Date Received: 12/30/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 3.8 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.8 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 12/30/19

Ranjit Clarke

From: Scott English <SEnglish@rinconconsultants.com> on behalf of Scott English
Sent: Thursday, January 09, 2020 2:23 PM
To: ranjit.clarke@enthalpy.com
Cc: Devin Cheyne
Subject: RE: 9019 N. Long Beach Blvd. (12/27/19) - Enthalpy Analytical Final Report #423303

Hello Ranjit, looks like we have two sample that need STLC lead. RB14-1 and RB18-1. Can you give me a price for that on a 3 day tat?

R. Scott English, RME
Senior Program Manager / Remediation Supervisor

Rincon Consultants, Inc.
805 644 4455 EXT 15 MOBILE 805 901 8596 DIRECT 805 947 4840
www.rinconconsultants.com
Environmental Scientists Planners Engineers

5000 Fastest Growing Companies – *Inc. Magazine*

From: Devin Cheyne <dcheyne@rinconconsultants.com>
Sent: Thursday, January 9, 2020 1:38 PM
To: Scott English <SEnglish@rinconconsultants.com>
Subject: Fwd: 9019 N. Long Beach Blvd. (12/27/19) - Enthalpy Analytical Final Report #423303

Begin forwarded message:

> **From:** Ranjit Clarke <ranjit.clarke@enthalpy.com>
> **Date:** January 8, 2020 at 4:25:56 PM PST
> **To:** Devin Cheyne <dcheyne@rinconconsultants.com>
> **Subject: 9019 N. Long Beach Blvd. (12/27/19) - Enthalpy Analytical Final Report #423303**
>
> **CAUTION:** This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .
>
> Hi Devin Cheyne,
>
> Attached is your final report #423303.
>
> Thank you.
>
> In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Enthalpy Analytical, LLC
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MONTROSE ENVIRONMENTAL

Client: Rincon Consultants - LA
Address: 250 E. 1st Street
Suite 1400
Los Angeles, CA 90012
Attn: Devin Cheyne

Comments: 9019 N. Long Beach Blvd.
17-03990

Lab Request: 423303
Report Date: 01/08/2020
Date Received: 12/30/2019
Client ID: 15729

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID	Sample #	Client Sample ID
423303-001	RB11-1	423303-025	RB19-1
423303-002	RB11-3	423303-026	RB19-3
423303-003	RB11-5	423303-027	RB19-5
423303-004	RB12-1	423303-028	RB20-1
423303-005	RB12-3	423303-029	RB20-3
423303-006	RB12-5	423303-030	RB20-5
423303-007	RB13-1		
423303-008	RB13-3		
423303-009	RB13-5		
423303-010	RB14-1		
423303-011	RB14-3		
423303-012	RB14-5		
423303-013	RB15-1		
423303-014	RB15-3		
423303-015	RB15-5		
423303-016	RB16-1		
423303-017	RB16-3		
423303-018	RB16-5		
423303-019	RB17-1		
423303-020	RB17-3		
423303-021	RB17-5		
423303-022	RB18-1		
423303-023	RB18-3		
423303-024	RB18-5		

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:05 **Site:**
Sample #: **423303-001** **Client Sample #:** RB11-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**12.2**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**440**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:10 **Site:**
Sample #: **423303-002** **Client Sample #:** RB11-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**12.6**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**190**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:15 **Site:**
Sample #: **423303-003** **Client Sample #:** RB11-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:20 **Site:**
Sample #: **423303-004** **Client Sample #:** RB12-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**19.4**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**210**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:25 **Site:**
Sample #: **423303-005** **Client Sample #:** RB12-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**6.80**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*109*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:30 **Site:**
Sample #: **423303-006** **Client Sample #:** RB12-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:35 **Site:**
Sample #: **423303-007** **Client Sample #:** RB13-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**36.1**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**1100**	20	200	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*00*	*50-150*	*S2*

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:40 **Site:**
Sample #: **423303-008** **Client Sample #:** RB13-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**9.15**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**72**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*109*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:45 **Site:**
Sample #: **423303-009** **Client Sample #:** RB13-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:50 **Site:**
Sample #: **423303-010** **Client Sample #:** RB14-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**56.1**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**100**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*110*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:55 **Site:**
Sample #: **423303-011** **Client Sample #:** RB14-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**8.33**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**32**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*115*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:00 **Site:**
Sample #: **423303-012** **Client Sample #:** RB14-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:05 **Site:**
Sample #: **423303-013** **Client Sample #:** RB15-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**17.8**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**2100**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*98*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:10 **Site:**
Sample #: **423303-014** **Client Sample #:** RB15-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**16.8**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**34**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:15 **Site:**
Sample #: **423303-015** **Client Sample #:** RB15-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:20 **Site:**
Sample #: **423303-016** **Client Sample #:** RB16-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**10.5**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**100**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*119*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:25 **Site:**
Sample #: **423303-017** **Client Sample #:** RB16-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**5.80**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*115*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:30 **Site:**
Sample #: **423303-018** **Client Sample #:** RB16-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:35 **Site:**
Sample #: **423303-019** **Client Sample #:** RB17-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**8.51**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**88**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*117*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:40 **Site:**
Sample #: **423303-020** **Client Sample #:** RB17-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**6.51**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:45 **Site:**
Sample #: **423303-021** **Client Sample #:** RB17-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:00 **Site:**
Sample #: **423303-022** **Client Sample #:** RB18-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**102**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**310**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:05 **Site:**
Sample #: **423303-023** **Client Sample #:** RB18-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**6.90**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**56**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:10 **Site:**
Sample #: **423303-024** **Client Sample #:** RB18-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:15 **Site:**
Sample #: **423303-025** **Client Sample #:** RB19-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**8.85**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**76**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:20 **Site:**
Sample #: **423303-026** **Client Sample #:** RB19-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**4.74**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:25 **Site:**
Sample #: **423303-027** **Client Sample #:** RB19-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:30 **Site:**
Sample #: **423303-028** **Client Sample #:** RB20-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**13.4**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**430**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*104*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:35 **Site:**
Sample #: **423303-029** **Client Sample #:** RB20-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**7.98**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**41**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:40 **Site:**
Sample #: **423303-030** **Client Sample #:** RB20-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

QCBatchID: QC1213087 **Analyst:** rvenegas **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 12/31/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1213087MB1						
Lead	ND	mg/Kg		1		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213087LCS1											
Lead	100		101		mg/Kg	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213087MS1, QC1213087MSD1												**Source: 423303-001**
Lead	12.2	100	100	106	115	mg/Kg	94	103	8.1	75-125	20	

QCBatchID:	**QC1213207**	**Analyst:**	bmorris	**Method:**	EPA 8015M
Matrix:	Solid	**Analyzed:**	01/03/2020	**Instrument:**	SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1213207MB1						
ORO (C28 to C40)	ND	mg/Kg		10		
TPH (C10 to C28)	ND	mg/Kg		10		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1213207LCS1											
TPH (C10 to C28)	250		230		mg/Kg	92			60-133		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1213207MS1, QC1213207MSD1												**Source: 423303-001**
TPH (C10 to C28)	200	250	250	310	340	mg/Kg	44	56	9.2	70-130	20	M

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 1 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	9019 N Long Beach Blvd
Report To:	Devon Cheyre	Number:	17-03990
Email:	dcheyre@rinconconsultants.com	P.O. #:	
Address:	250 E 1st Street	Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Cheyre

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH - 0.1 8015	Analysis Request: Lead 6000-7000	Test Instructions / Comments
1	RB11-1	12-27-19	0805	Soil	1		X	X	
2	RB11-3		0810				X	V	
3	RB11-5		0815						Hold
4	RB12-1		0820				X	X	
5	RB12-3		0825				X	V	
6	RB12-5		0830						Hold
7	RB13-1		0835				X	X	
8	RB13-3		0840				X	X	
9	RB13-5		0845						Hold
10	RB14-1		0850				X	X	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devon Cheyre	Rincon Consultants	12-30-19 1220
1 Received By:		FERNANDO DIAZ	EA	12/30/19 1220
2 Relinquished By:		FERNANDO DIAZ	EA	12/30/19 1427
2 Received By:		Elizabeth Ramos	EA	12/30/19 14.27
3 Relinquished By:				
3 Received By:				

0.8/3.8

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 2 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Ramon Consultants	Name:	9019 N Long Beach Blvd
Report To:	Devin Chapel	Number:	17-03990
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Chapel

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH - Oil 8015M	Lead 6000-7000	Test Instructions / Comments
1	RB14-3	12-27-19	0855	Soil	1		X	X	
2	RB14-5		0900						Hold
3	RB15-1		0905				X	X	
4	RB15-3		0910				X	X	
5	RB15-5		0915						Hold
6	RB16-1		0920				X	X	
7	RB16-3		0925				X	X	
8	RB16-5		0930						Hold
9	RB17-1		0935				X	X	
10	RB17-3		0940				X	X	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devin Chapel	Ramon Consultants	12-30-19 1220
1 Received By:		Fernando Dua	EA	12/30/19 1220
2 Relinquished By:		Fernando Dua	EA	12/30/19 1427
2 Received By:		Elizabeth Donner	EA	12/30/19 14.27
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 3 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Kinnon Consultants	Name:	9019N Long Beach Blvd
Report To:	Devin Chaffe	Number:	17-03998
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Chaffe

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH-Oil 8015M	Lead 6000-7000	Test Instructions / Comments
1	RB17-5	12-27-19	0945	Soil	1				Hold
2	RB18-1		1000				X	X	
3	RB18-3		1005				X	X	
4	RB18-5		1010						Hold
5	RB19-1		1015				X	X	
6	RB19-3		1020				X	X	
7	RB19-5		1025						Hold
8	RB20-1		1030				X	X	
9	RB20-3		1035				X	X	
10	RB20-5		1040						Hold

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Devin Chaffe	Kinnon Consultants	12-30-19 1220
[1] Received By:		Fernando Dinn	EA	12/30/19 1220
[2] Relinquished By:		Fernando Dinn	EA	12/30/19 1427
[2] Received By:		Elizabeth Renner	EA	12/30/19 14:27
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants Project: 9019 N Long Beach Blvd.

Date Received: 12/30/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 3.8 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.8 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 12/30/19

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client: Rincon Consultants - LA
Address: 250 E. 1st Street
Suite 1400
Los Angeles, CA 90012
Attn: Devin Cheyne

Lab Request: 423303
Report Date: 01/15/2020
Date Received: 12/30/2019
Client ID: 15729

Comments: 9019 N. Long Beach Blvd.
17-03990

Supplemental Report 1 - STLC Lead results are now reported where requested.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID	Sample #	Client Sample ID
423303-001	RB11-1	423303-025	RB19-1
423303-002	RB11-3	423303-026	RB19-3
423303-003	RB11-5	423303-027	RB19-5
423303-004	RB12-1	423303-028	RB20-1
423303-005	RB12-3	423303-029	RB20-3
423303-006	RB12-5	423303-030	RB20-5
423303-007	RB13-1		
423303-008	RB13-3		
423303-009	RB13-5		
423303-010	RB14-1		
423303-011	RB14-3		
423303-012	RB14-5		
423303-013	RB15-1		
423303-014	RB15-3		
423303-015	RB15-5		
423303-016	RB16-1		
423303-017	RB16-3		
423303-018	RB16-5		
423303-019	RB17-1		
423303-020	RB17-3		
423303-021	RB17-5		
423303-022	RB18-1		
423303-023	RB18-3		
423303-024	RB18-5		

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:05 **Site:**
Sample #: **423303-001** **Client Sample #:** RB11-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**12.2**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**440**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:10 **Site:**
Sample #: **423303-002** **Client Sample #:** RB11-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**12.6**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**190**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:15 **Site:**
Sample #: **423303-003** **Client Sample #:** RB11-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:20 **Site:**
Sample #: **423303-004** **Client Sample #:** RB12-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**19.4**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**210**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:25 **Site:**
Sample #: **423303-005** **Client Sample #:** RB12-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**6.80**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*109*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:30 **Site:**
Sample #: **423303-006** **Client Sample #:** RB12-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:35 **Site:**
Sample #: **423303-007** **Client Sample #:** RB13-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**36.1**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**1100**	20	200	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*00*	*50-150*	*S2*

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:40 **Site:**
Sample #: **423303-008** **Client Sample #:** RB13-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**9.15**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**72**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*109*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:45 **Site:**
Sample #: **423303-009** **Client Sample #:** RB13-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:50 **Site:**
Sample #: **423303-010** **Client Sample #:** RB14-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**56.1**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 6010B *NELAC*	Prep Method: STLC					QCBatchID: QC1213574		
Lead	**3.57**	10	0.15	mg/L		01/15/20	KLN	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**100**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*110*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 08:55 **Site:**
Sample #: **423303-011** **Client Sample #:** RB14-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**8.33**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**32**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*115*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:00 **Site:**
Sample #: **423303-012** **Client Sample #:** RB14-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:05 **Site:**
Sample #: **423303-013** **Client Sample #:** RB15-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**17.8**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**2100**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*98*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:10 **Site:**
Sample #: **423303-014** **Client Sample #:** RB15-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**16.8**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**34**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:15 **Site:**
Sample #: **423303-015** **Client Sample #:** RB15-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:20 **Site:**
Sample #: **423303-016** **Client Sample #:** RB16-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**10.5**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**100**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*119*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:25 **Site:**
Sample #: **423303-017** **Client Sample #:** RB16-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**5.80**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*115*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:30 **Site:**
Sample #: **423303-018** **Client Sample #:** RB16-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:35 **Site:**
Sample #: **423303-019** **Client Sample #:** RB17-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**8.51**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**88**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*117*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:40 **Site:**
Sample #: **423303-020** **Client Sample #:** RB17-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**6.51**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	% Recovery	Limits	Notes
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 09:45 **Site:**
Sample #: **423303-021** **Client Sample #:** RB17-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:00 **Site:**
Sample #: **423303-022** **Client Sample #:** RB18-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**102**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 6010B *NELAC*	Prep Method: STLC					QCBatchID: QC1213574		
Lead	**17.8**	10	0.15	mg/L		01/15/20	KLN	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**310**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*108*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:05 **Site:**
Sample #: **423303-023** **Client Sample #:** RB18-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**6.90**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**56**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:10 **Site:**
Sample #: **423303-024** **Client Sample #:** RB18-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:					QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:15 **Site:**
Sample #: **423303-025** **Client Sample #:** RB19-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1213087		
Lead	**8.85**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M	Prep Method: EPA 3580A					QCBatchID: QC1213207		
ORO (C28 to C40)	**76**	2	20	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:20 **Site:**
Sample #: **423303-026** **Client Sample #:** RB19-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**4.74**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	ND	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:25 **Site:**
Sample #: **423303-027** **Client Sample #:** RB19-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:30 **Site:**
Sample #: **423303-028** **Client Sample #:** RB20-1 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**13.4**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**430**	5	50	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*104*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:35 **Site:**
Sample #: **423303-029** **Client Sample #:** RB20-3 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B						QCBatchID: QC1213087		
Lead	**7.98**	1	1	mg/Kg		01/02/20	SBW	
Method: EPA 8015M Prep Method: EPA 3580A						QCBatchID: QC1213207		
ORO (C28 to C40)	**41**	1	10	mg/Kg	01/03/20	01/05/20	MTS	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*111*	*50-150*	

Matrix: Solid **Client:** Rincon Consultants - LA **Collector:** Client
Sampled: 12/27/2019 10:40 **Site:**
Sample #: **423303-030** **Client Sample #:** RB20-5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: Prep Method:						QCBatchID:		
N/A	**N/A**	1						

QCBatchID: QC1213087 **Analyst:** rvenegas **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 12/31/2019 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1213087MB1						
Lead	ND	mg/Kg		1		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213087LCS1											
Lead	100		101		mg/Kg	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213087MS1, QC1213087MSD1												**Source: 423303-001**
Lead	12.2	100	100	106	115	mg/Kg	94	103	8.1	75-125	20	

QCBatchID: QC1213207 **Analyst:** bmorris **Method:** EPA 8015M

Matrix: Solid **Analyzed:** 01/03/2020 **Instrument:** SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1213207MB1						
ORO (C28 to C40)	ND	mg/Kg		10		
TPH (C10 to C28)	ND	mg/Kg		10		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213207LCS1											
TPH (C10 to C28)	250		230		mg/Kg	92			60-133		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213207MS1, QC1213207MSD1												**Source: 423303-001**
TPH (C10 to C28)	200	250	250	310	340	mg/Kg	44	56	9.2	70-130	20	M

QCBatchID: QC1213574 **Analyst:** msanchez **Method:** EPA 6010B

Matrix: Solid **Analyzed:** 01/15/2020 **Instrument:** AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1213574MB1					
Antimony	ND	mg/L		0.09	
Arsenic	ND	mg/L		0.03	
Barium	ND	mg/L		0.03	
Beryllium	ND	mg/L		0.015	
Cadmium	ND	mg/L		0.015	
Chromium	ND	mg/L		0.03	
Cobalt	ND	mg/L		0.015	
Copper	ND	mg/L		0.03	
Lead	ND	mg/L		0.015	
Molybdenum	ND	mg/L		0.03	
Nickel	ND	mg/L		0.06	
Selenium	ND	mg/L		0.03	
Silver		mg/L		0.015	
Thallium	ND	mg/L		0.15	
Vanadium	ND	mg/L		0.015	
Zinc	ND	mg/L		0.06	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1213574LCS1, QC1213574LCSD1											
Antimony	20	20	21.3	19.8	mg/L	107	99	7	80-120	20	
Arsenic	20	20	20.9	19.3	mg/L	105	97	8	80-120	20	
Barium	20	20	20.9	19.1	mg/L	105	96	9	80-120	20	
Beryllium	20	20	18.0	18.0	mg/L	90	90	0	80-120	20	
Cadmium	20	20	19.2	17.9	mg/L	96	90	7	80-120	20	
Chromium	20	20	18.8	17.3	mg/L	94	87	8	80-120	20	
Cobalt	20	20	19.1	17.6	mg/L	96	88	8	80-120	20	
Copper	20	20	20.6	18.8	mg/L	103	94	9	80-120	20	
Lead	20	20	18.2	17.2	mg/L	91	86	6	80-120	20	
Molybdenum	20	20	21.4	19.8	mg/L	107	99	8	80-120	20	
Nickel	20	20	19.3	17.8	mg/L	97	89	8	80-120	20	
Selenium	20	20	18.7	17.8	mg/L	94	89	5	80-120	20	
Silver	5	5			mg/L				80-120	20	
Thallium	20	20	16.2	15.8	mg/L	81	79	2	80-120	20	L
Vanadium	20	20	21.7	19.9	mg/L	109	100	9	80-120	20	
Zinc	20	20	19.8	18.2	mg/L	99	91	8	80-120	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 1 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	9019 N Long Beach Blvd
Report To:	Devon Cheyre	Number:	17-03990
Email:	dcheyre@rinconconsultants.com	P.O. #:	
Address:	250 E 1st Street	Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Cheyre

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH - 0.1 8015	Analysis Request: Lead 6000-7000	Test Instructions / Comments
1	RB11-1	12-27-19	0805	Soil	1		X	X	
2	RB11-3		0810				X	V	
3	RB11-5		0815						Hold
4	RB12-1		0820				X	X	
5	RB12-3		0825				X	V	
6	RB12-5		0830						Hold
7	RB13-1		0835				X	X	
8	RB13-3		0840				X	X	
9	RB13-5		0845						Hold
10	RB14-1		0850				X	X	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devon Cheyre	Rincon Consultants	12-30-19 1220
1 Received By:		FERNANDO DIAZ	EA	12/30/19 1220
2 Relinquished By:		FERNANDO DIAZ	EA	12/30/19 1427
2 Received By:		Elizabeth Ramos	EA	12/30/19 14.27
3 Relinquished By:				
3 Received By:				

0.8/3.8

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 2 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Ramon Consultants	Name:	9019 N Long Beach Blvd
Report To:	Devin Chapel	Number:	17-03990
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Chapel

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	TPH - Oil 8015M	Lead 6000-7000	Test Instructions / Comments
1	RB14-3	12-27-19	0855	Soil	1		X	X	
2	RB14-5		0900						Hold
3	RB15-1		0905				X	X	
4	RB15-3		0910				X	X	
5	RB15-5		0915						Hold
6	RB16-1		0920				X	X	
7	RB16-3		0925				X	X	
8	RB16-5		0930						Hold
9	RB17-1		0935				X	X	
10	RB17-3		0940				X	X	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Devin Chapel	Ramon Consultants	12-30-19 1220
1 Received By:		Fernando Dua	EA	12/30/19 1220
2 Relinquished By:		Fernando Dua	EA	12/30/19 1427
2 Received By:		Elizabeth Donner	EA	12/30/19 14.27
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 423303

Page: 3 of 3

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

<<< Select a Laboratory >>>

#N/A

#N/A

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Kinnon Consultants	Name:	9019N Long Beach Blvd
Report To:	Devin Chaffe	Number:	17-03998
Email:		P.O. #:	
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	D. Chaffe

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: TPH-Oil 8015M	Lead 6000-7000	Test Instructions / Comments
1	RB17-5	12-27-19	0945	Soil	1				Hold
2	RB18-1		1000				X	X	
3	RB18-3		1005				X	X	
4	RB18-5		1010						Hold
5	RB19-1		1015				X	X	
6	RB19-3		1020				X	X	
7	RB19-5		1025						Hold
8	RB20-1		1030				X	X	
9	RB20-3		1035				X	X	
10	RB20-5		1040						Hold

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Devin Chaffe	Kinnon Consultants	12-30-19 1220
[1] Received By:		Fernando Dinn	EA	12/30/19 1220
[2] Relinquished By:		Fernando Dinn	EA	12/30/19 1427
[2] Received By:		Elizabeth Renner	EA	12/30/19 14:27
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants Project: 9019 N Long Beach Blvd.

Date Received: 12/30/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 3.8 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.8 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 12/30/19

Ranjit Clarke

From: Scott English <SEnglish@rinconconsultants.com> on behalf of Scott English
Sent: Thursday, January 09, 2020 2:23 PM
To: ranjit.clarke@enthalpy.com
Cc: Devin Cheyne
Subject: RE: 9019 N. Long Beach Blvd. (12/27/19) - Enthalpy Analytical Final Report #423303

Hello Ranjit, looks like we have two sample that need STLC lead. RB14-1 and RB18-1. Can you give me a price for that on a 3 day tat?

R. Scott English, RME
Senior Program Manager / Remediation Supervisor

Rincon Consultants, Inc.
805 644 4455 EXT 15 MOBILE 805 901 8596 DIRECT 805 947 4840
www.rinconconsultants.com
Environmental Scientists Planners Engineers

5000 Fastest Growing Companies – *Inc. Magazine*

From: Devin Cheyne <dcheyne@rinconconsultants.com>
Sent: Thursday, January 9, 2020 1:38 PM
To: Scott English <SEnglish@rinconconsultants.com>
Subject: Fwd: 9019 N. Long Beach Blvd. (12/27/19) - Enthalpy Analytical Final Report #423303

Begin forwarded message:

> **From:** Ranjit Clarke <ranjit.clarke@enthalpy.com>
> **Date:** January 8, 2020 at 4:25:56 PM PST
> **To:** Devin Cheyne <dcheyne@rinconconsultants.com>
> **Subject: 9019 N. Long Beach Blvd. (12/27/19) - Enthalpy Analytical Final Report #423303**
>
> **CAUTION:** This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .
>
> Hi Devin Cheyne,
>
> Attached is your final report #423303.
>
> Thank you.
>
> In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix F
Noise Study

Habitat for Humanity IS/EA

Noise Impact Study

City of South Gate, CA

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MD ACOUSTICS
Sound Solutions for Planning and Design

TABLE OF CONTENTS

1.0 Introduction 1
1.1 Purpose of Analysis and Study Objectives 1
1.2 Site Location and Study Area 1
1.3 Proposed Project Description 1
1.4 Report Summary 2

2.0 Fundamentals of Noise 5
2.1 Sound, Noise and Acoustics 5
2.2 Frequency and Hertz 5
2.3 Sound Pressure Levels and Decibels 5
2.4 Addition of Decibels 5
2.5 Human Response to Changes in Noise Levels 6
2.6 Noise Descriptors 6
2.7 Traffic Noise Prediction 7
2.8 Sound Propagation 8

3.0 Ground-Bourne Vibration Fundamentals 9
3.1 Vibration Descriptors 9
3.2 Vibration Perception 9
3.3 Vibration Perception 9

4.0 Regulatory Setting 11
4.1 Federal Regulations 11
4.2 State Regulations 11
4.3 City of South Gate Noise Regulations 12

5.0 Study Method and Procedure 18
5.1 Noise Measurement Procedure and Criteria 18
5.2 Short-term Noise Measurement Locations 18
5.3 Stationary Noise Modeling 18
5.4 FHWA Roadway Construction Noise Model 19

6.0 Existing Noise Environment 21
6.1 Short-Term Noise Measurement Results 21

7.0 Future Noise Environment Impacts and Mitigation 22
7.1 Future Exterior Noise 22
7.1.1 Noise Impacts to Off-Site Receptors Due to Stationary Sources 22
7.1.2 Noise Impacts to Off-Site Receptors Due to Project Generated Traffic 23
7.2 Interior Noise Levels 23
7.3 Noise Reduction Measures 24

8.0 Construction Noise Impact 26
8.1 Construction Noise 26

8.2 Construction Vibration 27
8.3 Construction Noise Reduction Measures 28

9.0 References 29

LIST OF APPENDICES

Appendix A: Field Measurement Data 1
Appendix B: Traffic Trip Generation and VMT Analysis 2
Appendix C: SoundPlan Input/Output 3
Appendix D: Reference Data 4
Appendix E: Construction Calcs 5

LIST OF EXHIBITS

Exhibit A: Location Map 3
Exhibit B: Site Plan 4
Exhibit C: Typical A-Weighted Noise Levels 5
Exhibit D: Land Use Compatibility Guidelines 12
Exhibit E: Measurement Locations 20
Exhibit F: Future Operational Noise Levels (Leq) 25

LIST OF TABLES

Table 1: Short-term Nosie Measurement Data (dBA)[1] 21
Table 2: Worst-case Predicted Operational Noise Levels (dBA) 22
Table 3: Future 2040 Interior Noise Levels (dBA, CNEL) 23
Table 4: Typical Construction Noise Levels[1] 26
Table 5: Guideline Vibration Damage Potential Threshold Criteria 27
Table 6: Vibration Source Levels for Construction Equipment[1] 28

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This noise assessment was prepared to evaluate the potential noise impacts for the project study area and to recommend noise mitigation measures, if necessary, to minimize the potential noise impacts. The assessment was conducted and compared to the noise standards set-forth by the Federal, State and Local agencies. Consistent with the City's Noise Guidelines, the project must demonstrate compliance to the applicable noise criterion as outlined within the City's Noise Element and Municipal Code.

The following is provided in this report:

- A description of the study area and the proposed project
- Information regarding the fundamentals of noise
- A description of the local noise guidelines and standards
- An analysis of traffic noise impacts to and from the project site
- An analysis of stationary noise impacts to and from the project site
- An analysis of construction noise impacts

1.2 Site Location and Study Area

The 9001-19 Long Beach Boulevard Residential Project (referenced herein as "Project") site is located in the City of South Gate within the County of Los Angeles; refer to Exhibit A, Location Map. The Project site is approximately 0.66 acres located at 9001-19 Long Beach Boulevard in the western portion of the City, at the southwest corner of the Willow Place and Long Beach Boulevard intersection; refer to Exhibit A, Location Map.

Regional access to the site is provided via the Interstate 105 Freeway (I-5) located south of the Project site, Interstate 110 Freeway (I-10) located west of the Project site, and the Interstate 710 Freeway located east of the Project site. Local access to the site is provided from Long Beach Boulevard and Willow Place.

1.3 Proposed Project Description

The Project proposes the removal of all existing on-site improvements and structures within the 0.66-acre site and construction of a common interest subdivision and affordable housing development. The Project proposes to construct 14 three-story attached townhomes in three buildings (30,700 square feet; 21.21 dwelling units/per acre); refer to Exhibit B, Conceptual Site Plan. Each building will have a maximum height of 31 feet. Twelve (12) of the townhomes will be sold to qualified Low Income Homebuyers at an Affordable Housing Code ("Ownership Units") and two townhomes will be operated as rental housing units for occupancy and tenancy by Extremely Low Income Households ("ELI Housing Units"). All units will have a two-car garage, front porch, and outdoor balcony. The units will include two floor plans: Ownership Units will have three bedrooms and 3.5 bathrooms, and will be approximately 1,589 square feet and ELI Housing Units will have two bedrooms and two bathrooms and will be approximately 1,344 square feet. The common areas will include guest surface parking areas, outdoor

benches, and community green space. Landscaping will be installed in the Project frontage along Willow Place and Long Beach Boulevard.

PARKING

South Gate Municipal Code Section 11.33.080, Urban Mixed-Use Zone Requirements, states that single-family dwellings require two enclosed spaces and 0.2 guest spaces per dwelling unit. The Project would require two enclosed spaces for each of the units for a total of 28 enclosed spaces. An additional three guest spaces would be required based on the market rate units. The Project proposes attached two car garages for the 14 units with two of the units having tandem parking. An additional five open parking stalls for guest parking will be provided on the site.

SITE ACCESS

Access to the Project site is proposed from two driveways, one located on Willow Place and one located on Long Beach Boulevard. Pedestrian access would be provided to the individual units for units 1 and 2 from Willow Place, and units 3 through 14 from Long Beach Boulevard. A private interior driveway system, consistent with Los Angeles County Fire access requirements, would provide access to the individual townhome units; refer to Figure 2-3.

INFRASTRUCTURE

Water and sewer for the individual units will connect to existing laterals in Willow Place and Long Beach Boulevard. An on-site stormwater capture system (dry well system) will be placed under the driveway.

1.4 Report Summary

Ambient noise levels at the proposed project location range from 63-69 dBA during peak traffic times. These levels fall under the “conditionally acceptable” category for multifamily residential uses as shown in the noise compatibility matrix in Exhibit D. The City of South Gate has a residential noise limit (40 dBA nighttime, 50 dBA daytime) that is exceeded by the existing ambient condition; therefore, MD assumes that the exterior ambient noise level is the limit. The City also requires an interior noise level not to exceed 45 dBA CNEL for residential uses, which can be accomplished with proper building shell design.

Project plus ambient levels for the building façade will be ~69 dBA CNEL or less. In order to meet the City’s 45 dBA CNEL interior requirement, windows facing the roadway must have at least a 29 STC rating. All other windows and sliding glass doors must have an STC rating of 25 or above. The site is currently within the conditionally acceptable level for the noise compatibility matrix and will not increase in noise level due to this project.

Project plus existing ambient levels for neighboring properties will between 63-70 dBA Leq. The nearby residential properties are currently in the conditionally acceptable CNEL levels according to the noise compatibility matrix (under 70 dBA CNEL). Those properties will not increase from that level due to this project.

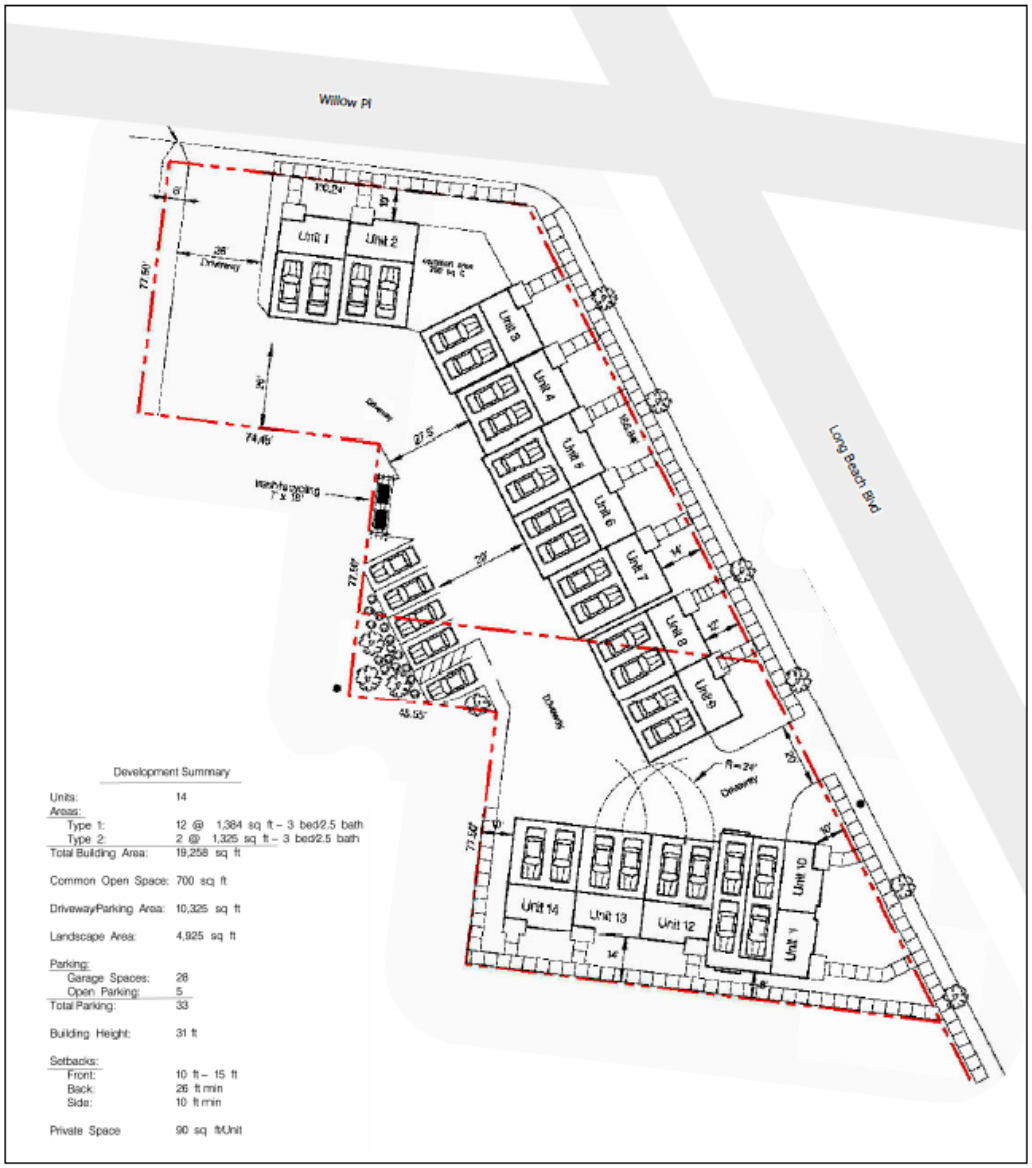
Exhibit A

Location Map



Exhibit B

Conceptual Site Plan



N

Legend

Project Boundary

9001-19 LONG BEACH BLVD RESIDENTIAL PROJECT

Figure 2-3. Conceptual Site Plan

0 20 40 Feet

Sources: Habitat for Humanity of Greater Los Angeles; Los Angeles County GIS. Map date: November 16, 2022.

2.0 Fundamentals of Noise

This section of the report provides basic information about noise and presents some of the terms used within the report.

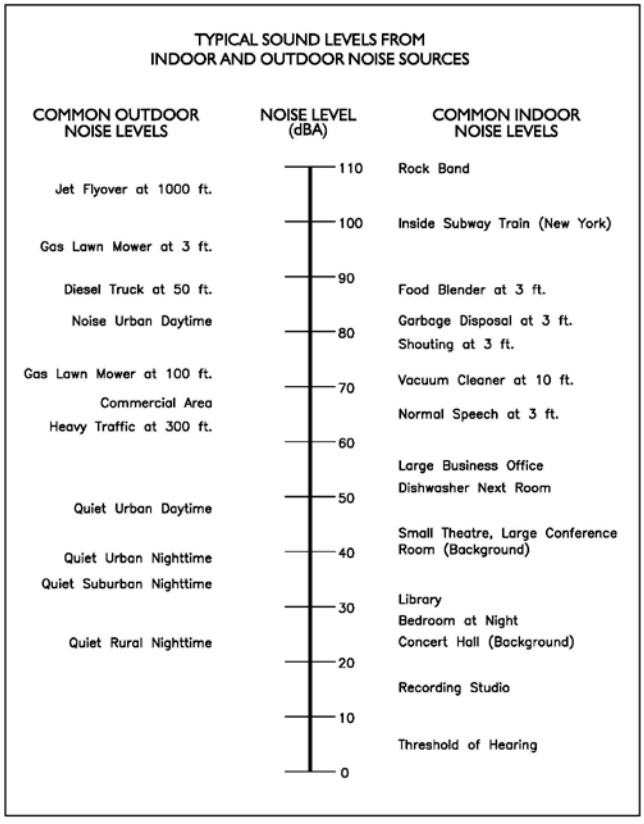
2.1 Sound, Noise and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic, or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

Exhibit C: Typical A-Weighted Noise Levels



2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines it loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measure in units of micro-Newton per square inch meter (N/m2), also called micro-Pascal (µPa). One µPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels abbreviated dB. Exhibit C illustrates references sound levels for different noise sources.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds or equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound.

2.5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

Changes in Intensity Level, dBA	Changes in Apparent Loudness
1	Not perceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud

https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90 and L99, etc.

Noise: *A*ny unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

2.7 Traffic Noise Prediction

Noise levels associated with traffic depends on a variety of factors: (1) volume of traffic, (2) speed of traffic, (3) auto, medium truck (2–3 axle) and heavy truck percentage (4 axle and greater), and sound propagation. The greater the volume of traffic, higher speeds and truck percentages equate to a louder volume in noise. A doubling of the Average Daily Traffic (ADT) along a roadway will increase noise levels by approximately 3 dB; reasons for this are discussed in the sections above.

2.8 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity and turbulence can further impact have far sound can travel.

3.0 Ground-Bourne Vibration Fundamentals

3.1 Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude.

PPV – Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

RMS – Known as root mean squared (RMS) can be used to denote vibration amplitude

VdB – A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration. To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.

3.3 Vibration Perception

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 Regulatory Setting

The proposed project is located in the City of Santa Rosa and noise regulations are addressed through the efforts of various federal, state and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Publicize noise emission standards for interstate commerce
- Assist state and local abatement efforts
- Promote noise education and research

The Federal Office of Noise Abatement and Control (ONAC) originally was tasked with implementing the Noise Control Act. However, it was eventually eliminated leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows: The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies. The Federal Aviation Agency (FAA) is responsible to regulate noise from aircraft and airports. The Federal Highway Administration (FHWA) is responsible to regulate noise from the interstate highway system. The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The federal government advocates that local jurisdiction use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being constructed adjacent to a highway or, or alternatively that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

4.2 State Regulations

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the “Land Use Compatibility for Community Noise Environments Matrix.” The matrix allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

The State of California has established noise insulation standards as outlined in Title 24 and the Uniform Building Code (UBC) which in some cases requires acoustical analyses to outline exterior noise levels and to ensure interior noise levels do not exceed the interior threshold. The State mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan.

4.3 City of South Gate Noise Regulations

The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable as illustrated in Exhibit D.

Exhibit D: Land Use Compatibility Guidelines

Table N-4: Noise and Land Use Compatibility Matrix

Land Use Category	Community Noise Exposure (Ldn or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70-75	75-85
Residential - Multiple Family	50 - 65	60 - 70	70 - 75	70 – 85
Transient Lodging - Motel, Hotels	50 - 65	60 - 70	70 - 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 - 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 70	NA	70 - 80	80 – 85
Office Buildings, Business Commercial and Professional	50 - 70	67.5 - 77.5	75 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	75 - 85	NA

NA: Not Applicable

Source: Office of Planning and Research, California, General Plan Guidelines, October 2003.

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 systems or air conditioning, will normally suffice.*

Normally Unacceptable *– New construction or development should 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.*

The City of South Gate outlines their noise regulations and standards within the Noise Element from the General Plan.

City of South Gate General Plan

The Land Use Compatibility Standards are presented in Exhibit D.

Goals, Objectives, and Policies

Goal N1: A reduction in noise levels created by construction and maintenance activities

Objective N1.1: Minimize noise levels from construction and maintenance equipment, vehicles, and activities.

Policies

P.1 Construction activities will be prohibited between the hours of 7:00 PM to 8: 00 AM Monday through Saturday and on Sundays and Federal holidays.

P.2 Construction noise reduction methods will be employed to the maximum extent feasible. These measures may include, but not limited to, shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied sensitive receptor areas, and use of electric air compressors and similar power tools, rather than diesel equipment.

P.3 Prior to approval of project plans and specifications by the City, project applicants and/or construction contractors will identify construction equipment and noise reducing measures, and the anticipated noise reduction.

P.4 The City will require municipal vehicles and noise-generating mechanical equipment purchased or used by the City to comply with noise standards specified in the City's Municipal Code, or other applicable codes.

P.5 The City may exceed the noise standards on a case-by-case basis for special circumstances including emergency situations, special events and expedited development projects.

Goal N3: A reduction of noise spillover or encroachment from commercial/ office/retail, research and development, manufacturing and distribution, and industrial uses on adjoining residential areas and other noise sensitive land uses

Objective N 3.1: Improve ambient noise conditions in sensitive land use areas.

Policies

P.1 The City will identify and work with property owners to reduce or eliminate excessive or loud noise near noise sensitive areas to meet the noise standards in the City's Municipal Code.

P.2 The City should encourage the retrofitting of existing homes to reduce interior noise impacts.

P.3 The City should encourage the use of noise absorbing materials in existing and future development to reduce interior noise impacts to sensitive land uses.

Objective N 3.2: Minimize noise impacts to residential dwelling units located above ground floor commercial/office/retail or civic/institutional uses in mixed-use development projects.

Policies

P.1 New mixed-use structures with commercial/office/retail or civic/institutional and residential uses will incorporate techniques that prevent the transfer of noise and vibration through design and construction technology.

P.2 The City should encourage commercial uses in mixed-use developments that are not noise intrusive to on-site or surrounding noise sensitive land uses.

P.3 The City will prohibit the development of new nightclubs and other high noise-generating entertainment uses directly adjacent to existing and/or planned residential uses, schools, health care facilities, or other noise-sensitive land uses. Such uses may be permitted, at the direction of the City Council, if a noise analysis prepared by an acoustical expert recommends effective mitigation that can ensure compliance with the City's Municipal Code and that the project will incorporate all identified recommendations.

P.4 New mixed-use development projects should locate residential units be away from significant noise generating sources, such as mechanical equipment, entertainment uses, restaurant patios, gathering places, loading and delivery areas, parking lots, and trash enclosures.

P.5 New mixed-use developments with residential components will be required to install signs requesting patrons to be mindful of noise levels in outdoor commercial areas during nighttime hours.

Objective N 3.3: Minimize noise impacts on residential or other noise-sensitive land uses located adjacent to non-residential uses.

Policies

P.1 Truck deliveries to non-residential uses abutting residential or noise sensitive uses will be limited to the hours between 7:00 AMand 10:00 PM.

P.2 New non-residential projects adjacent to residential uses will be required to incorporate noise reducing features into the project design to minimize impacts to nearby residential uses and other noise sensitive land uses.

P.3 The City will prohibit the location of uses characterized by excessive noise, such as industrial uses and fast food restaurants with drive-through speakers, directly adjacent or in close proximity to existing or planned residential uses.

P.4 The City will prohibit the siting of loading and shipping facilities for commercial and industrial operations adjacent to existing or planned residential uses.

P.5 New buildings being developed adjacent to existing and/or planned residential uses or other noise-sensitive land uses will be required to site and operate heating, ventilating,

and air conditioning generators in a manner that limits adverse noise impacts to the greatest extent feasible.

P.6 Wherever feasible, parking areas for new or redeveloped non-residential uses should be buffered and shielded by, but not limited to, walls, fences, and/or adequate landscaping.

P.7 The City should encourage existing noise sensitive uses, including schools, libraries, health care facilities, and residential uses in areas where existing or future noise levels exceed 65 dBA CNEL to incorporate fences, walls, landscaping, and/or other noise buffers and barriers, where appropriate and feasible.

P.8 The City should encourage school districts or other educational facilities to locate outdoor activity areas, such as playgrounds and sport fields, away from residential areas.

Goal N 4: Minimize transportation noise impacts from motor vehicles and trains adjacent to residential and other noise sensitive land uses

Objective N 4.1: Work towards the reduction of transportation noise.

Policies

P.1 The City should minimize transportation noise through the proper design of street circulation, coordination of routing, and other traffic control measures (e.g., shifting travel lanes away from impacted units, adding bike ways, etc. to relieve traffic congestion).

P.2 Businesses in industrial areas will be required to manage heavy truck and vehicle access to minimize noise and vibration impacts on adjoining uses.

P.3 The City should discourage through traffic on residential local streets to reduce noise impacts.

P.4 The City will coordinate and work with California Department of Transportation (Caltrans) to minimize freeway noise levels from Interstate 710 (I-710) on nearby noise-sensitive land uses to a level below the State standard of 65 dBA CNEL for exterior noise levels and 45 dBA CNEL for interior residential noise levels.

Objective N 4.2: Minimize noise levels created by the Union Pacific, Southern Pacific, and any future rail systems located in close proximity to residential and other noise-sensitive land uses.

Policies

P.1 The City will work with rail operators to install and maintain noise mitigation features where operations adversely impact existing or planned residential and other noise-sensitive land uses.

P.2 The City will work with rail operators to ensure noise impacts are considered and mitigated through proper design, siting, and construction.

P.3 Future rail projects under the City's control will be required to analyze noise impacts and to identify and incorporate noise reducing features into the project design.

P.4 The City should encourage the construction of noise barriers for residential uses near active rail corridors.

P.5 The City should encourage rail operators to schedule rail train activity during daytime hours.

P.6 The City will require that noise attenuation measures be incorporated into all new development, renovations, and remodels of residential, health care facilities, schools, libraries, senior facilities, and churches in close proximity to existing or known planned rail lines. Sound attenuation measures will reduce interior noise to a maximum of 45 dBA CNEL.

Goal N 5: Implementation Actions Maximize efficiencies in noise abatement through clear and effective policies and ordinances

Objective N 5.1: Continuously review and modify City Plans, Codes, and Ordinances, as appropriate, to ensure noise generating uses are adequately addressed.

Policies

P.1 The City will modify and update the City's Noise Ordinance, land use plans, guidelines, and other regulations regularly and as needed in response to new Federal, State, and County standards and guidelines, as needed.

P.2 The City should review and update the City's policies and regulations affecting noise, as needed.

Goal N 6: Enforce all City noise standards

Objective N 6.1: Ensure residents, businesses, and visitors know and comply with the City's noise standards.

Policies

P.1 The City should make information available to the public regarding the City's noise regulations, the health effects of high noise levels, means of mitigating such levels, as well as abatement and enforcement procedures.

P.2 The City will enforce all City, State, and Federal noise standards.

P.3 The City should enforce established speed limits to control noise levels.

City of South Gate – Noise Ordinance

Section 11.34.080 Maximum sound levels by noise zone.

A. Noise Zone Standards. Table 11.34-1, Noise Zone Standards, establishes noise-level standards and temporary maximum standards applicable to land use categories by noise zone. No person shall make, cause, or allow noise that exceeds the standards of Table 11.34-1, inclusive of ambient noise. These standards are inclusive of all noise sources, including ambient noise, animals, equipment, firearms, people gatherings or parties, tools, vehicles, or other noise source resulting in temporary or sustained noise levels in excess of the standards of Table 11.34-1 and Table 11.34-2, Permitted Temporary Noise Level Increase.

Table 11.34-1 Noise Zone Standards

Noise Zone	Type of Land Use	Noise Standards[1]	
		Noise Level[2]	Time Period
1	Noise Sensitive Area	45 dBA	Anytime
2	Residential Properties	50 dBA	7:00 AM - 10:00 PM
		40 dBA	10:00 PM - 7:00 AM
3	Commercial Properties	55 dBA	Anytime
4	Industrial Properties	65 dBA	Anytime

Notes:
1. MD assumes if the ambient noise exceeds the resulting standard, the ambient noise level shall be the standard.
2. dBA = A-weighted decibel L_{eq} standard.

Table 11.34-2 Permitted Temporary Noise Level Increase

Permitted Maximum Increase[1]	Noise Duration[2]
+5 dBA	30 mins. per hour
+10 dBA	15 mins. per hour
+12 dBA	10 mins. per hour
+15 dBA	5 mins. per hour
+20 dBA	2 mins. per hour

Notes:
1. dBA = A-weighted decibel L_{eq} standard.
2. mins. = minutes

Regulation Summary

The current noise levels at the project location already exceed the base level conditions for residential zones. The noise ordinance does not specify how to apply the noise standard in this case; therefore, consistent with industry practice, MD assumes that if the ambient noise level exceeds the existing noise limit, the ambient noise level becomes the standard. In other words, if the project only noise does not exceed the existing ambient condition, then the project complies with the noise standard.

5.0 Study Method and Procedure

The following section describes the noise modeling procedures and assumptions used for this assessment.

5.1 Noise Measurement Procedure and Criteria

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

MD conducted the sound level measurements in accordance to the City and CalTrans technical noise specifications. All measurements equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA). The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed 5-feet above the ground for all measurements
- Sound level meters were calibrated (Larson Davis CAL 200) before and after each measurement
- Following the calibration of equipment, a wind screen was placed over the microphone
- Frequency weighting was set on “A” and slow response
- Results of the short-term noise measurements were recorded on field data sheets
- During any short-term noise measurements any noise contaminations such as barking dogs, local traffic, lawn mowers, or aircraft fly-overs were noted
- Temperature and sky conditions were observed and documented

5.2 Short-term Noise Measurement Locations

Three (3) 15-minute noise measurements were selected to represent the ambient noise condition at or near the project site. Short-term noise measurements were conducted at the project site and represent ambient levels at the site. Appendix A includes photos, field sheets, and measured noise data. Exhibit E (next page) illustrates the location of the measurements.

5.3 Stationary Noise Modeling

SoundPLAN (SP) acoustical modeling software was utilized to model future worst-case project operational noise impacts (stationary noise sources) to the on-site and nearest off-site sensitive receptors.

SP is capable of evaluating multiple stationary noise sources at various receiver locations. SP’s software utilizes algorithms (based on the inverse square law and FHWA calculations) to calculate noise level

projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations.

The future worst-case noise level projections were modeled using reference sound level data for the proposed project parking stalls and AC units. Noise associated with parking stalls include but are not limited to idling cars, doors closing, and starting engine noise. Noise levels associated with parking lots can reach peak levels of 80 dBA. In addition, the model takes into account the point source noise from the Project's fourteen (14) AC units with a reference noise level of 65 dBA at 10 feet from the source, Modeling input and output assumptions are indicated in Appendix C.

5.4 FHWA Roadway Construction Noise Model

The construction noise analysis utilizes the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM), together with several key construction parameters. Key inputs include distance to the sensitive receiver, equipment usage, % usage factor, and baseline parameters for the project site.

The project was analyzed based on the different construction phases. Construction noise is expected to be loudest during the grading phase of construction. The grading level was calculated as a worst-case level.

Exhibit E

Measurement Locations

X = Measurement location

= boundary



6.0 Existing Noise Environment

Three (3) 15-minute ambient noise measurement were conducted at the project site. The measurement measured the 15-minute Leq, Lmin, Lmax and other statistical data (e.g. L2, L8, etc.). The noise measurements were taken to determine the existing baseline noise conditions.

6.1 Short-Term Noise Measurement Results

The results of the short-term noise data are presented in Table 1.

Table 1: Short-term Nosie Measurement Data (dBA)[1]

Date	Start	Stop	15-Minute dB(A)							
			L_{EQ}	L_{MAX}	L_{MIN}	L_2	L_8	L_{25}	L_{50}	L_{90}
6/26/2018	5:21 PM	5:36 PM	62.6	73.6	48.9	70.0	66.7	63.2	60.3	52.9
6/26/2018	5:47 PM	6:02 PM	69.2	85.3	53.0	76.6	72.1	69.9	65.1	57.3
6/26/2018	6:03 PM	6:18 PM	65.8	86.3	50.7	71.6	68.6	65.8	62.7	55.1

Notes:
1. Short-term noise monitoring locations are illustrated in Exhibit E.

Noise data indicates the ambient level ranged between 63 dBA to 69 dBA Leq near the project site. Additional field notes and photographs are provided in Appendix A. It should be noted that the existing noise condition (62-69 dBA, Leq) at the site is greater than the City's daytime noise limit for residential uses (50 dBA, Leq) These ambient levels were used as the noise level limit for the project.

7.0 Future Noise Environment Impacts and Mitigation

This assessment analyzes future noise impacts from the project and compares the results to the City's Noise Standards. The analysis details the estimated exterior noise levels from on-site stationary noise sources.

7.1 Future Exterior Noise

The following outlines the exterior noise levels associated with the proposed project.

7.1.1 Noise Impacts to Off-Site Receptors Due to Stationary Sources

Sensitive receptors that may be affected by project operational noise include adjacent commercial land uses to the south and adjacent residential uses to the southwest and west of the project site. The worst-case stationary noise was modeled using SoundPLAN acoustical modeling software. The model utilizes reference sound level data for the mechanical equipment specified within Section 5.3 of this report.

A total of six (6) receptor locations were modeled to evaluate the proposed project's operational noise impact to adjacent noise sensitive land uses. A receptor is denoted by a yellow dot.

Project Operational Noise Levels

Exhibit F shows the "project only" operational noise levels at the property lines and/or sensitive receptor areas. Exhibit G illustrates the "project only" noise contours at the project site and illustrates how the noise will propagate at the site. Worst-case operational noise levels are anticipated to range between 40 to 60 dBA Leq at the receptors R1 – R6.

Project Plus Ambient Operational Noise Levels

Table 2 demonstrates the project plus ambient noise levels. Project plus ambient noise level projections are anticipated to range between 62.6 to 69.5 dBA Leq at the receptors R1 – R6. The project noise projections are below the City's existing ambient noise levels, and the change in noise level as a result of the project ranges from 0 to 1 dB.

Table 2: Worst-case Predicted Operational Noise Levels (dBA)

Receptor[1]	Floor	Existing Ambient Noise Level (dBA, Leq)[2]	Project Noise Level (dBA, Leq)[3]	Total Combined Noise Level (dBA, Leq)	Exceeds Ordinance?	Change in Noise Level as Result of Project
1	1	69.2	58.0	69.5	NO	0.3
2	1	65.8	54.0	66.1	NO	0.3
3	1	65.8	60.0	66.8	NO	1.0
4	1	65.8	47.0	65.9	NO	0.1
5	1	65.8	44.0	65.8	NO	0.0
6	1	62.6	40.0	62.6	NO	0.0

Notes:
[1.] Receptors 1 and 2 represent commercial uses. Receptors 3-6 represent residential uses.
[2.] Ambient Noise condition from short-term noise measurements.
[3.] See Exhibit F for the operational noise level projections at said receptors.

In addition, Table 2 provides the anticipated change in noise level as a result of the proposed project during operable conditions. As shown in Table 2, the operational noise levels will result in a nominal change at the various sensitive receptors.

When comparing the change in noise level to acoustic characteristics outlined within Section 2.5 of this report, the noise level increase would be not perceptible at the receptors.

As already demonstrated, the project noise levels do not exceed the existing ambient noise level. Therefore, the project's impact is less than significant, and no noise reduction measures are required.

7.1.2 Noise Impacts to Off-Site Receptors Due to Project Generated Traffic

The project would generate 94 daily passenger car equivalent trips of which six (6) would occur in the AM peak hour and seven (7) of which would occur in the PM peak hour. Per the project trip generation and VMT analysis/screening report provided by MAT Engineering, Inc. (*Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening, City of South Gate, California*), see Appendix B. This would not result in a substantial increase in traffic noise.

Traffic along the subject roadways would need to double in average daily traffic volumes to generate a 3 dBA increase in noise level. Since the project generates a nominal amount of traffic relative to the existing ADTs, the project's traffic noise level increase would be nominal and therefore less than significant.

7.2 Interior Noise Levels

The future interior noise level was calculated for the sensitive receptor locations using a typical "windows open" and "windows closed" condition. A "windows open" condition assumes 12 dBA of noise attenuation from the exterior noise level. A "windows closed" condition" assumes 20 dBA of noise attenuation from the exterior noise level. Table 3 indicates the first through 3rd floor interior noise levels for the project site.

Table 3: Future 2040 Interior Noise Levels (dBA, CNEL)

Location	Roadway Noise Source	Floor	Noise Level at Building Facade[1]	Interior Noise Reduction Required to Meet Interior Noise Standard of 45 dBA CNEL	Interior Noise Level w/ Typical Residential Windows (STC≥ 25)		STC Rating for Windows Facing Subject Roadway[4]
					Window Open[2]	Windows Closed[3]	
Façade Facing Long Beach Blvd	Long Beach Blvd	1st-3rd	69	24	57	49	29

Notes:
[1.] Noise level from short-term measurement during peak traffic hours.
[2.] A minimum of 12 dBA noise reduction is assumed with a "windows open" condition.
[3.] A minimum of 20 dBA noise reduction is assumed with a "windows closed" condition.
[4.] Indicates the required STC rating to meet the interior noise standard.

As shown in Table 3, the interior noise level would be about 57 dBA CNEL with the windows open and about 49 dBA CNEL with the windows closed with standard windows. The projections assume typical 2x4 wood frame and stucco construction for multi-family developments. To meet the City's interior 45 dBA CNEL standard a "windows closed" condition is required and windows and sliding glass doors facing Long Beach Boulevard with an STC rating of 29 are required.

The following outlines the glazing requirements for the project to meet interior noise standards:

1. All windows and sliding glass doors on the façade facing on Long Beach Boulevard must have an STC rating of 29 or higher for all floors.

2. All other windows and sliding glass doors must have an STC rating of 25 or higher on all floors.

7.3 Noise Reduction Measures

In order to comply with the City's noise requirements, the following noise reduction measures are required:

> 1. The project shall achieve a minimum 24 dBA noise reduction in the resident building shell design to meet the City's 45 dBA CNEL interior residential requirement by implementing windows with an STC rating ranging between 25 to 29, depending on façade location.

Exhibit F

Future Operational Noise Levels (Leq)



8.0 Construction Noise Impact

The degree of construction noise may vary for different areas of the project site and also vary depending on the construction activities. Noise levels associated with the construction will vary with the different phases of construction.

8.1 Construction Noise

The Environmental Protection Agency (EPA) has compiled data regarding the noise generated characteristics of typical construction activities. The data is presented in Table 4.

Table 4: Typical Construction Noise Levels[1]

Equipment Powered by Internal Combustion Engines

Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86

Impact Equipment

Type	Noise Levels (dBA) at 50 Feet
Saws	71 - 82
Vibrators	68 - 82

Notes:
[1] Referenced Noise Levels from the Environmental Protection Agency (EPA)

Construction noise is considered a short-term impact and would be considered significant if construction activities occur during daytime hours. Construction noise will have a temporary or periodic increase in the ambient noise level above the existing within the project vicinity. Furthermore, noise reduction measures are provided to further reduce construction noise. The impact is considered less than significant however construction noise level projections are provided.

Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels will be

loudest during grading phase. A likely worst-case construction noise scenario during grading assumes the use of a grader, a dozer, and two (2) backhoes operating at 65 feet from the nearest sensitive receptor. Grading is expected to reach up to 83 dBA Leq at the nearest sensitive receptor.

8.2 Construction Vibration

Construction activities can produce vibration that may be felt by adjacent land uses. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary vibration source during construction may be from a bulldozer. A large bulldozer has a vibration impact of 0.03 inches per second peak particle velocity (PPV) at 65 feet which is below any risk to architectural damage and on the threshold of perception.

The fundamental equation used to calculate vibration propagation through average soil conditions and distance is as follows:

$$PPV_{equipment} = PPV_{ref} (100/D_{rec})^n$$

Where: PPV_{ref} = reference PPV at 100ft.
D_{rec} = distance from equipment to receiver in ft.
n = 1.1 (the value related to the attenuation rate through ground)

The thresholds from the Caltrans Transportation and Construction Induced Vibration Guidance Manual in Table 5 (below) provides general thresholds and guidelines as to the vibration damage potential from vibratory impacts.

Table 5: Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Table 19, Transportation and Construction Vibration Guidance Manual, Caltrans, Sept. 2013.
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 6 gives approximate vibration levels for particular construction activities. This data provides a reasonable estimate for a wide range of soil conditions.

Table 6: Vibration Source Levels for Construction Equipment[1]

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

[1] Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

At a distance of 65 feet, a large bulldozer would yield a worst-case 0.03 PPV (in/sec) which just on the threshold of perception and any risk of damage. The impact is less than significant, and no mitigation is required.

8.3 Construction Noise Reduction Measures

Construction operations must follow the City's General Plan and the Noise Ordinance, which states that construction, repair or excavation work performed must occur within the permissible hours. To further ensure that construction activities do not disrupt the adjacent land uses, the following measures should be taken:

1. Construction should occur during the daytime.

2. During construction, the contactor shall ensure all construction equipment is equipped with appropriate noise attenuating devices.

3. The contractor should locate equipment staging areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.

4. Idling equipment should be turned off when not in use.

5. Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

9.0 References

State of California General Plan Guidelines: 1998. Governor's Office of Planning and Research

City of South Gate: 2035 General Plan Noise Element.

City of South Gate: Section 11.34 Municipal Code. July 2022.

Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening, City of South Gate, California. MAT Engineering, Inc. December 1, 2022.

Appendix A:

Field Measurement Data

15-Minute Continuous Noise Measurement Datasheet

Project Name:	Habitat for Humanity IS/EA
Project: #/Name:	0462-2022-034
Site Address/Location:	9001-9019 Long Beach Blvd
Date:	11/15/2022
Field Tech/Engineer:	Jason Schuyler/ Samuel Hord

Site Observations:

The site is directly under a flight path for Long Beach Int. Airport. as such the planes are almost constant in the sound readings. The compressor for the tire shot turned on at 5:54 pm and again later in NM3. Temp 64F winds 0-1 MPH. Traffic on Long Beach Blvd. is the primary noise source.

Sound Meter:	XL2, NTI	**SN:**	A2A-08562-E0
Settings:	A-weighted, slow, 1-sec, 15-minute interval		
Site Id:	NM1, NM2, NM3		



MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

Project Name: Habitat for Humanity IS/EA

Site Address/Location: 9001-9019 Long Beach Blvd

Site Id: NM1, NM2, NM3

Figure 1: NM1



Figure 2: NM2



Figure 3: NM3

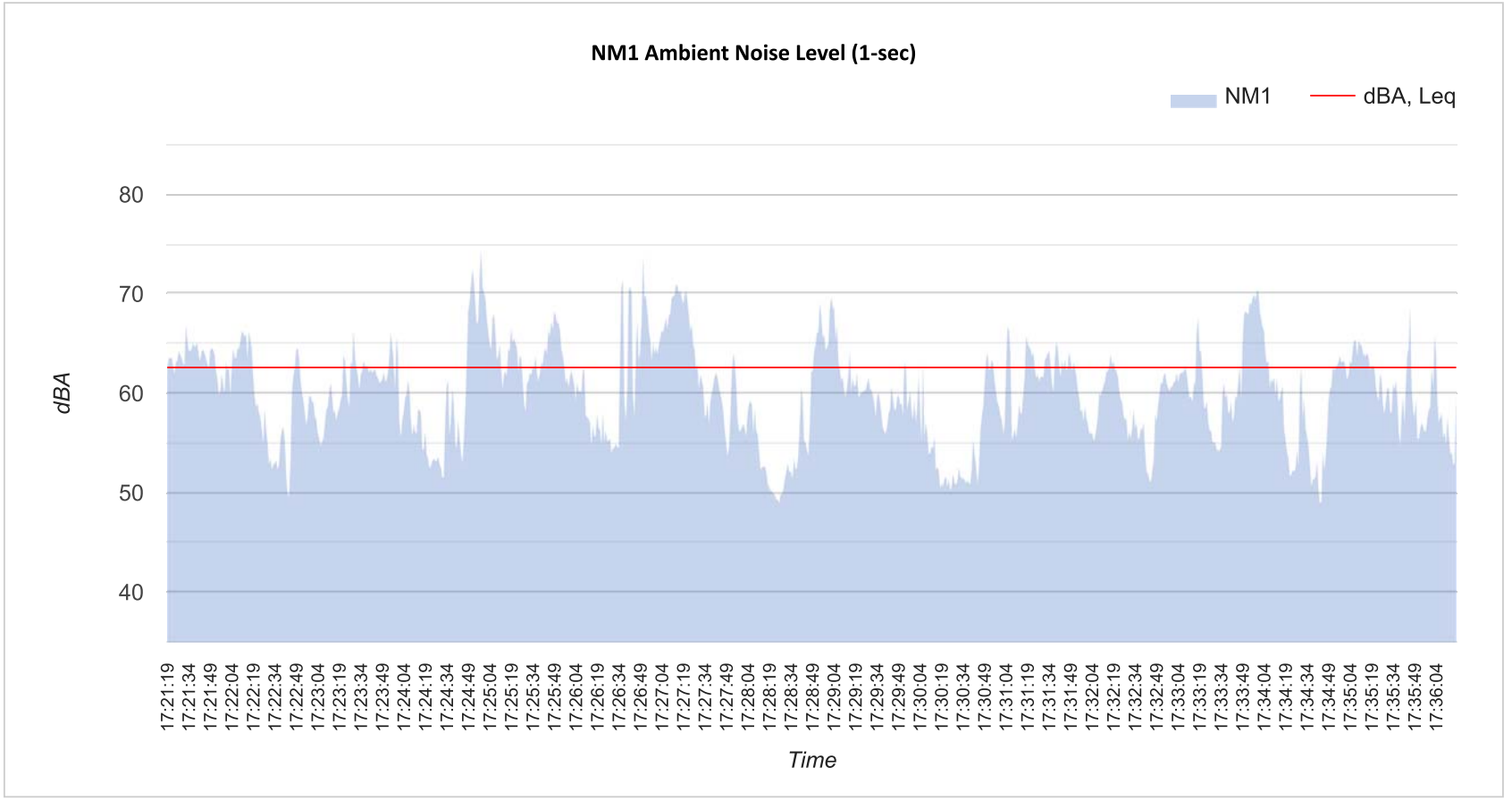


Table 1: Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
NM1	5:21 PM	5:36 PM	62.6	73.6	48.9	70	66.7	63.2	60.3	52.9
NM2	5:47 PM	6:02 PM	69.2	85.3	53.0	76.6	72.1	69.9	65.1	57.3
NM3	6:03 PM	6:18 PM	65.8	86.3	50.7	71.6	68.6	65.8	62.7	55.1

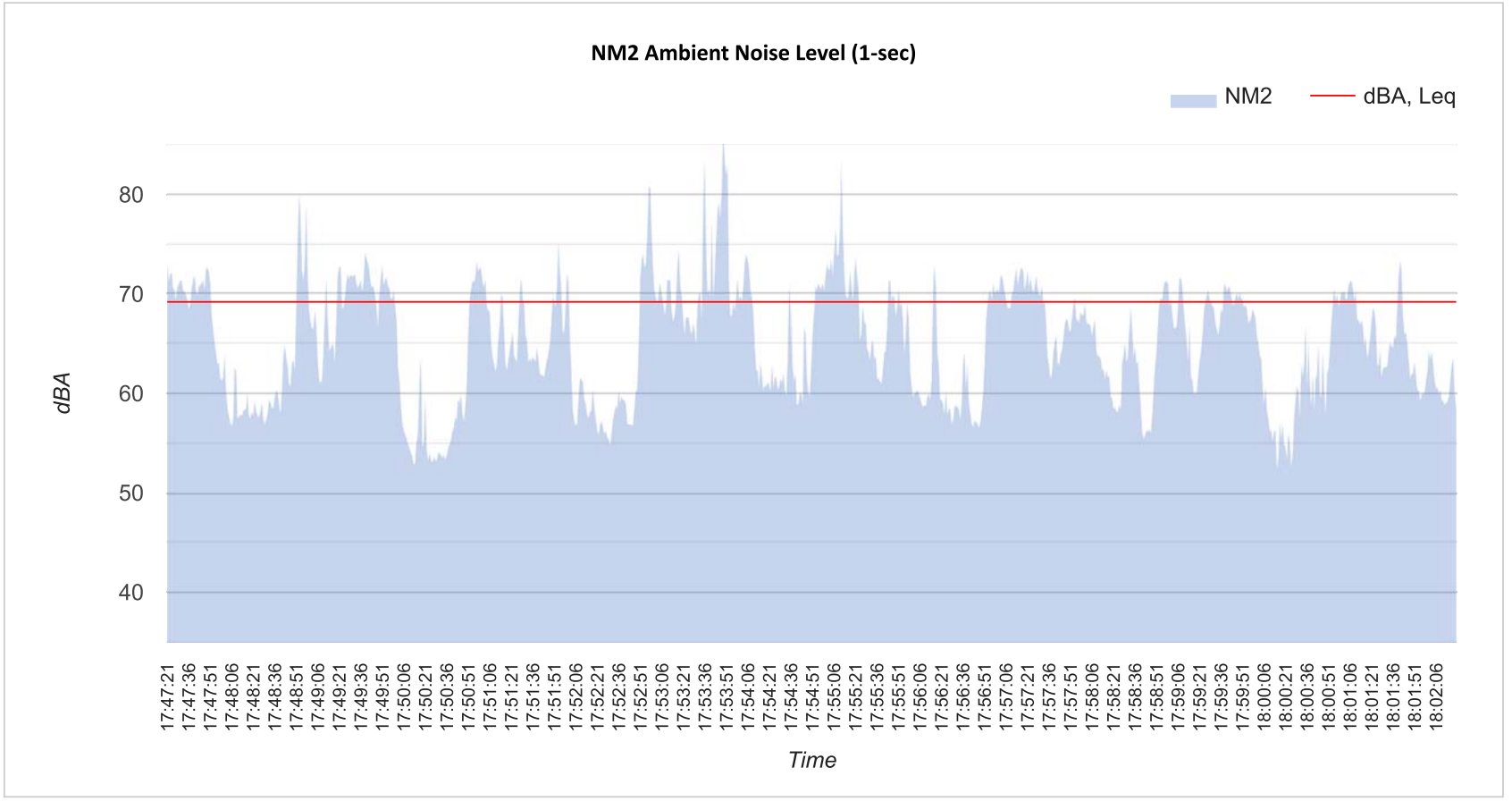
15-Minute Continuous Noise Measurement Datasheet - Cont.

Project Name:	Habitat for Humanity IS/EA	**Site Topo:**	Buildings 1-2 stories tall site	**Noise Source(s) w/ Distance:**	
Site Address/Location:	9001-9019 Long Beach Blvd	**Meteorological Cond.:**	64F Winds 0-1MPH	Road, Air plane and residential noise	
Site Id:	NM1	**Ground Type:**	buildings and asphalt		



15-Minute Continuous Noise Measurement Datasheet - Cont.

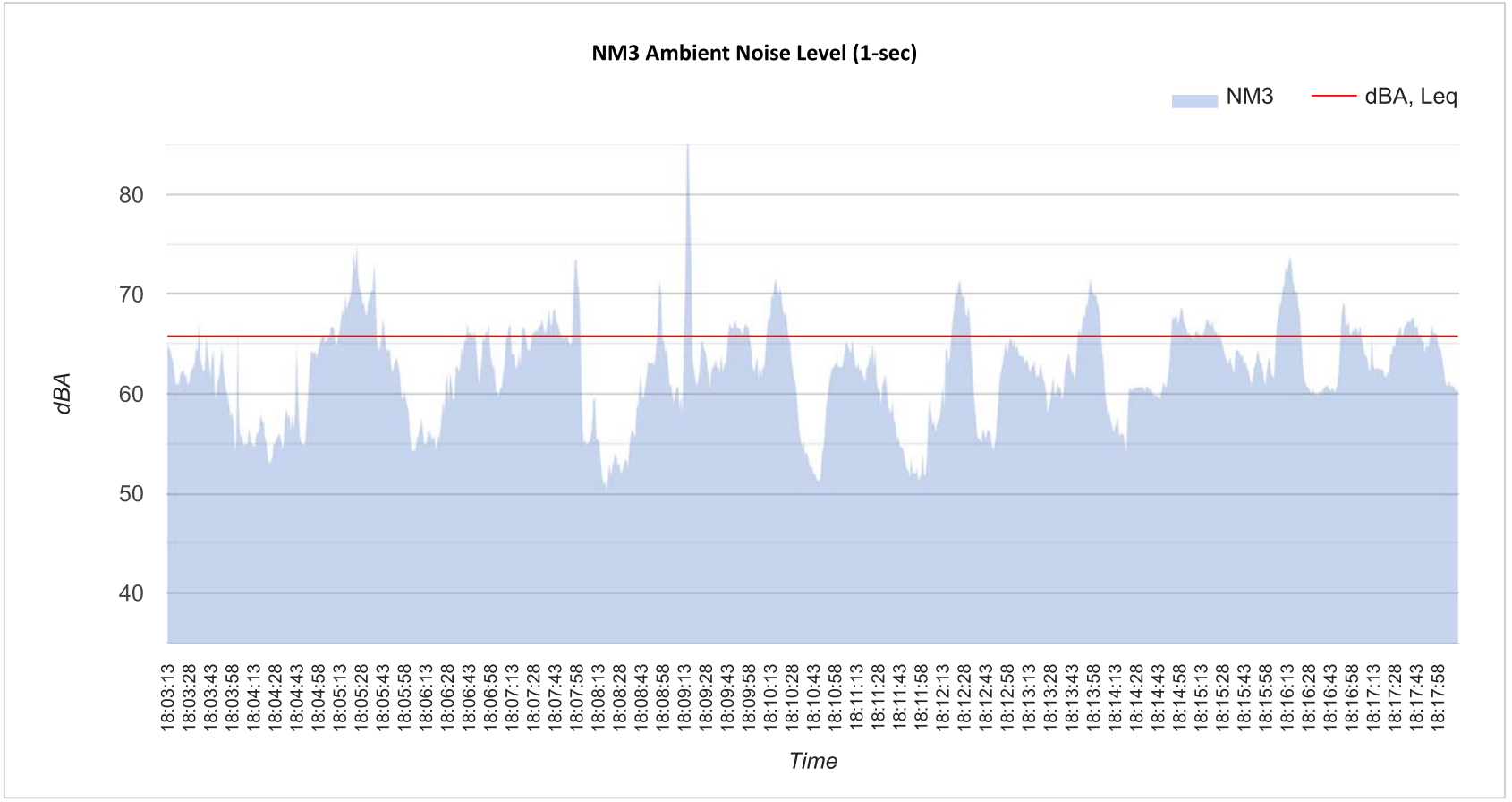
Project Name:	Habitat for Humanity IS/EA	**Site Topo:**	Buildings 1-2 stories tall site	**Noise Source(s) w/ Distance:**	
Site Address/Location:	9001-9019 Long Beach Blvd	**Meteorological Cond.:**	64F Winds 0-1MPH	Road, Air plane and residential noise	
Site Id:	NM2	**Ground Type:**	buildings and asphalt		



MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

Project Name:	Habitat for Humanity IS/EA	**Site Topo:**	Buildings 1-2 stories tall site	**Noise Source(s) w/ Distance:**	
Site Address/Location:	9001-9019 Long Beach Blvd	**Meteorological Cond.:**	64F Winds 0-1MPH	Road, Air plane and residential noise	
Site Id:	NM3	**Ground Type:**	buildings and asphalt		



MD ACOUSTICS

Appendix B:

Traffic Trip Generation and VMT Analysis

MAT Engineering, Inc.

www.matengineering.com
17192 Murphy Avenue #14902
Irvine, CA 92623
Ph: 949.344.1828

December 1, 2022

Ms. Starla Barker
DE NOVO PLANNING GROUP
180 East Main Street #108
Tustin, CA 92780

Subject: **Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening, City of South Gate, California**

Dear Starla,

MAT Engineering, Inc. is pleased to submit this trip generation study and VMT screening for the proposed Long Beach Boulevard multifamily residential project in the City of South Gate.

This analysis has been prepared in accordance with the scope previously reviewed and approved by City staff. A copy of the approved scope is contained in **Attachment D**.

A. Project Description & Location

The project site is located on the southwest corner of the Long Beach Boulevard / Willow Place intersection in the City of South Gate.

Existing uses on the project site consist of an auto repair/tire shop with an area of approximately 650 square feet.

The proposed project consists of removal of the existing auto repair/tire shop with development of 14 dwelling units of three-story multi-family residential use.

Access for the proposed project is planned via two driveways; one driveway on Willow place and one right-in/right-out driveway on Long Beach Boulevard.

Exhibit A shows the project location. **Exhibit B** shows the proposed site plan.

B. Project Trip Generation

Trip generation represents the amount of trips attracted and produced by a land use.

The trip generation for the existing use and the proposed project is based upon the specific land uses that have been planned for this project and has been determined utilizing the Institute of Transportation Engineers (ITE) trip generation rates which is an industry standard for calculating trips associated with land uses.

Table 1 shows the trip ITE trip generation rates for the existing and also the proposed uses based on the ITE. A copy of the ITE rates descriptions for these land uses is contained in **Attachment B**.

Table 1
ITE Trip Generation Rates

Land Use	ITE Code	Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Auto Repair/Care	942	TSF	1.49	0.76	2.25	1.49	1.62	3.11	31.1 *
Multi-family Residential (Low-Rise)	220	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74

Notes:

Source: 2021 ITE 11th Edition Trip Generation Manual;

TSF = Thousand Square Feet; DU = Dwelling Units

* For auto repair use, since ITE does not have daily rates, the daily rate is derived by multiplying the PM peak hour rate by a factor of 10.0

Utilizing the ITE trip generation rates from **Table 1**, **Table 2** shows a summary of the net trip generation for the proposed project after accounting for the existing land use which will be removed.

Table 2
Project Trip Generation

Land Use	Quantity	Units	ITE Code	Peak Hour						Daily
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Proposed Use (14 Dwelling Units of Low-Rise Multifamily Residential Units)	14	DU	220	1	5	6	4	3	7	94
Existing Use (650 Square Feet of Auto Repair Use)	0.650	TSF	942	-1	0	-1	-1	-1	-2	-20
NET Total				**0**	**5**	**5**	**3**	**2**	**5**	**74**

Source::

Institute of Transportation Engineers (ITE) 2021 Trip Generation Manual (11th Edition) Source: 2021 ITE 11th Edition Trip Generation Manual;

As shown in **Table 2**, based on the ITE trip generation rates:

- Without taking any credit for the existing use, the proposed project is forecast to generate approximately 94 daily trips which include approximately 6 AM peak hour trips and approximately 7 PM peak hour trips.

- The existing use generates approximately 20 daily trips which include approximately 1 AM peak hour trips and approximately 2 PM peak hour trips.

- After taking credit for the existing use, the proposed project is forecast to generate approximately 74 NET additional daily trips which include approximately 5 NET additional AM peak hour trips and approximately 5 NET additional PM peak hour trips.

C. Trip Generation Evaluation & Access Analysis

As shown in **Table 2**, after taking credit for the existing use, the proposed project is forecast to generate approximately 74 NET additional daily trips which include approximately 5 NET additional AM peak hour trips and approximately 5 NET additional PM peak hour trips.

Based on industry standards and the Los Angeles County traffic study requirements, typically, a full traffic study is required when a project generates more than 50 peak hour trips or 110 daily trips. Since the proposed project is expected to generate a low number of trips, a full traffic study is not required for the proposed project. Due to the low number of trips, the project is expected to not have an adverse impact on the level of service and operations of the surrounding circulation system and roadway network.

D. Proposed Scope of Vehicle Miles Traveled (VMT) Analysis

In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Effective July 1, 2020, the previous CEQA metric of LOS, typically measured in terms of automobile delay, roadway capacity and congestion, generally will no longer constitute a significant environmental impact.

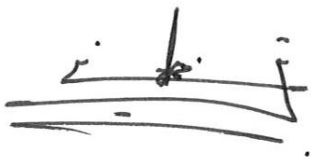
Based on Section 3.1.2.1 of the County of Los Angeles traffic study requirements (July 23, 2020), non-retail projects generating less than 110 daily trips could be screened out from requiring a full VMT analysis. A copy of the guidelines is contained in Attachment C.

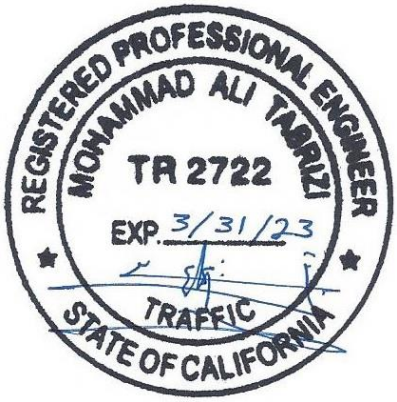
Hence, the proposed project screens out for requiring a full VMT analysis and has a less than significant traffic impact under the California Environmental Quality Act (CEQA).

MAT Engineering Inc. appreciates the opportunity to provide this technical letter and memorandum. If you have any questions, concerns, or comments, please contact us at 949-344-1828 or at@matengineering.com.

Respectfully submitted,

MAT ENGINEERING, INC.



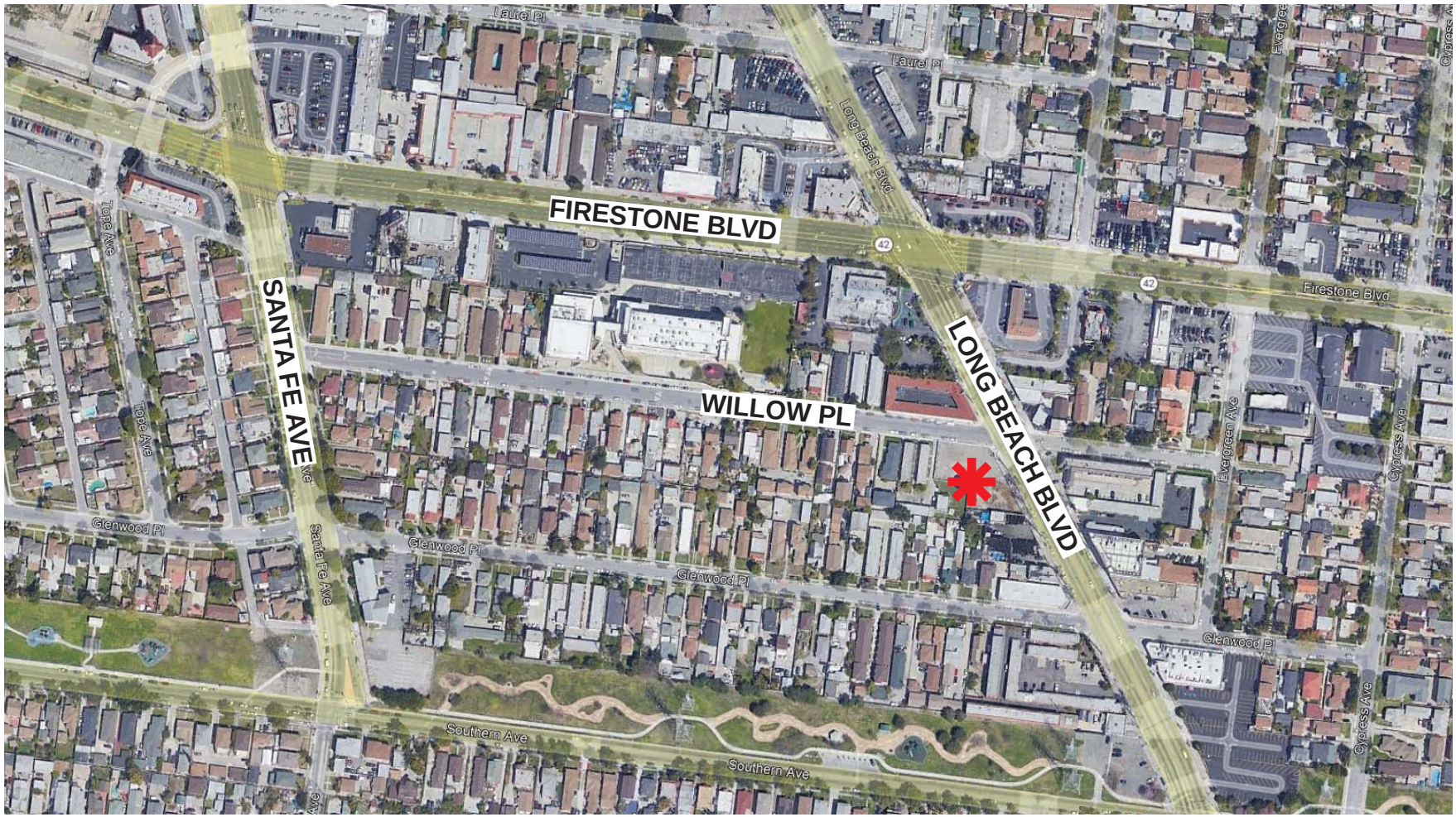


Alex Tabrizi, PE, TE

President

Attachment A

Exhibits



Legend:

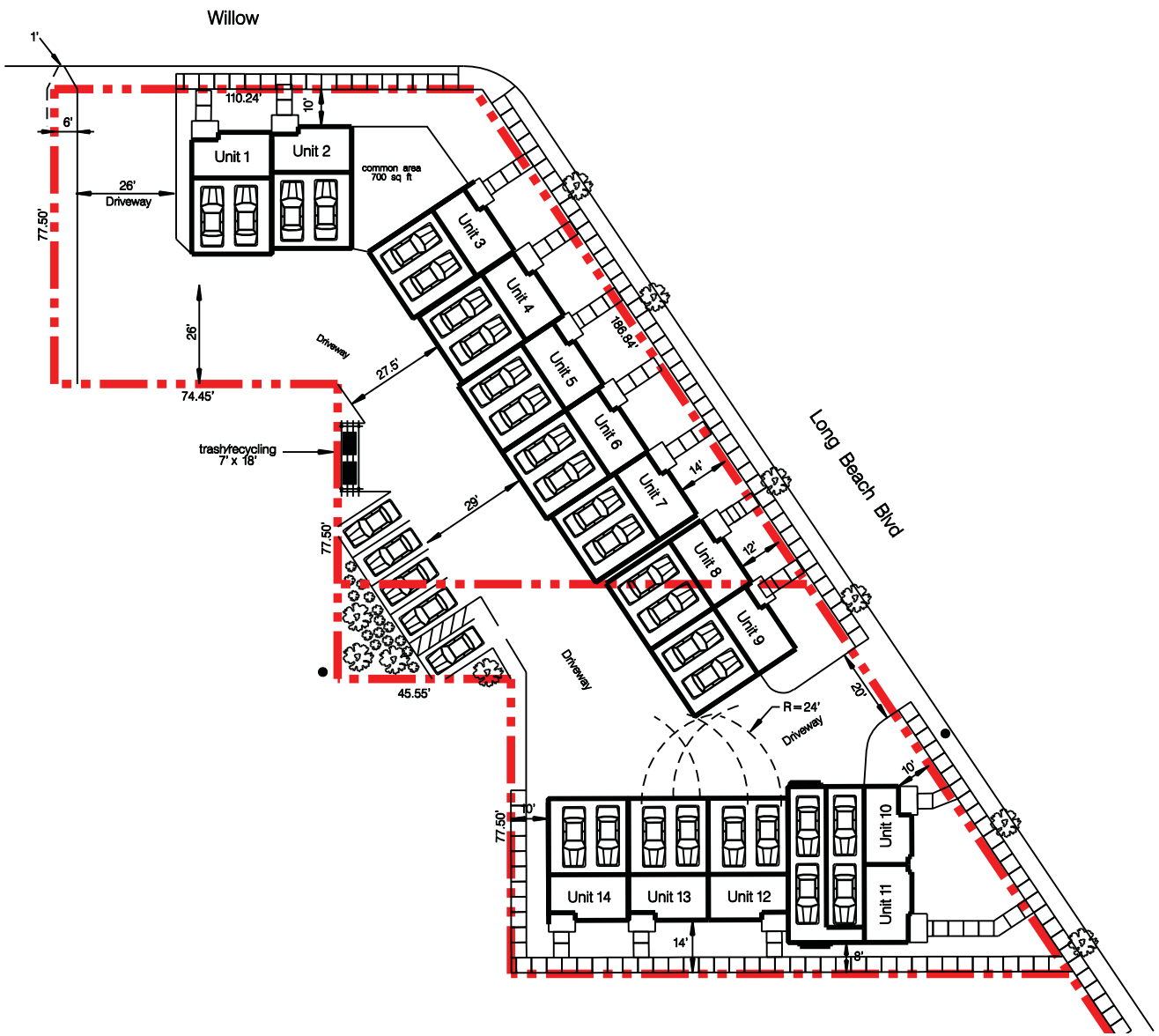
Site Location

Not to Scale

ENGINEERING, INC.

Project Location

Exhibit A



Not to Scale

ENGINEERING, INC.

Site Plan

Exhibit B

Attachment B

ITE Data

Land Use: 220
Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors (levels). Various configurations fit this description, including walkup apartment, mansion apartment, and stacked townhouse.

- A walkup apartment typically is two or three floors in height with dwelling units that are accessed by a single or multiple entrances with stairways and hallways.
- A mansion apartment is a single structure that contains several apartments within what appears to be a single-family dwelling unit.
- A fourplex is a single two-story structure with two matching dwelling units on the ground and second floors. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.
- A stacked townhouse is designed to match the external appearance of a townhouse. But, unlike a townhouse dwelling unit that only shares walls with an adjoining unit, the stacked townhouse units share both floors and walls. Access to the individual units is typically internal to the structure and provided through a central entry and stairway.

Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), affordable housing (Land Use 223), and off-campus student apartment (low-rise) (Land Use 225) are related land uses.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip

generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 1990s, the 2000s, the 2010s, and the 2020s in British Columbia (CAN), California, Delaware, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, and Washington.

Source Numbers

188, 204, 237, 300, 305, 306, 320, 321, 357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

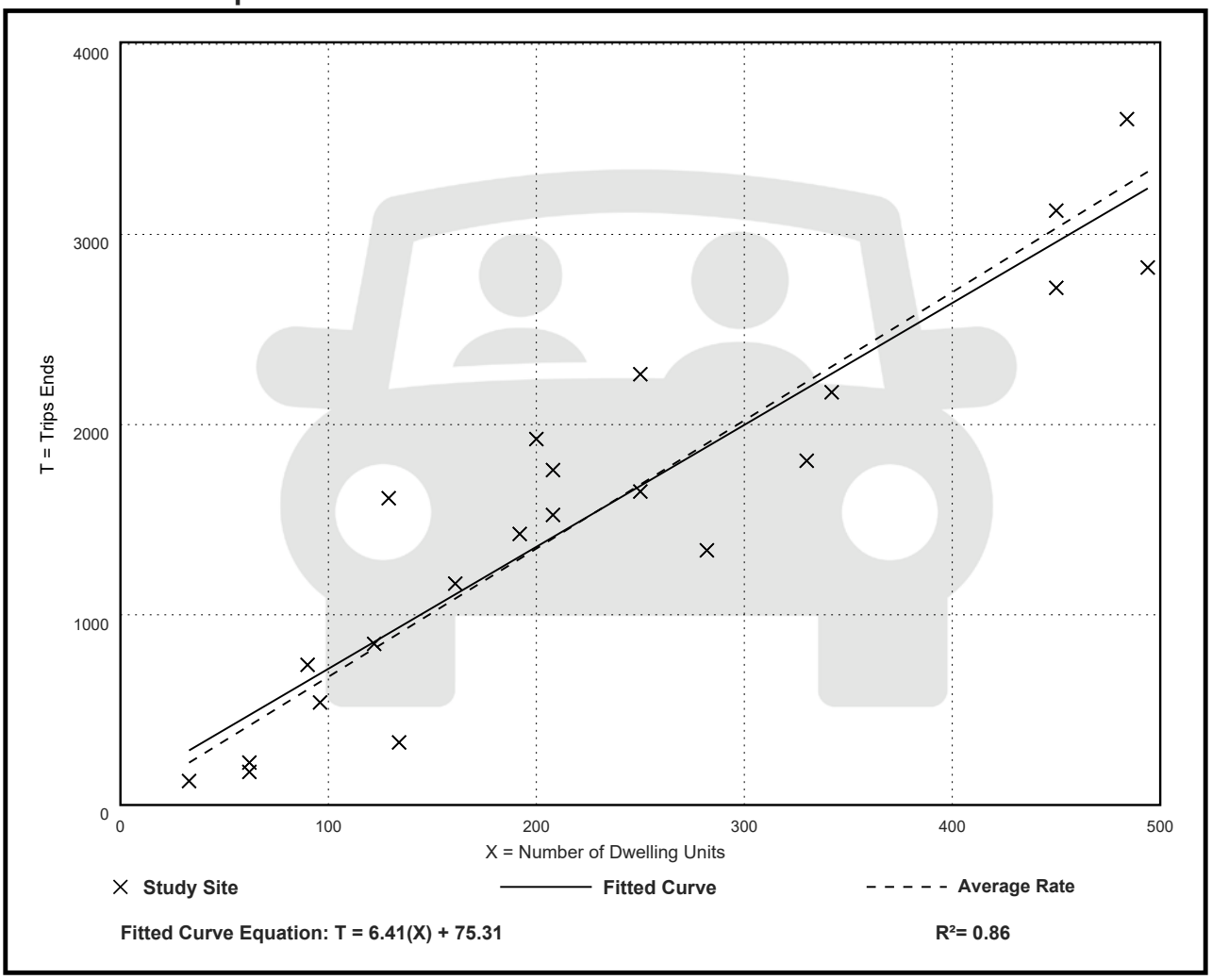
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Fitted Curve Equation: T = 6.41(X) + 75.31

R^2= 0.86

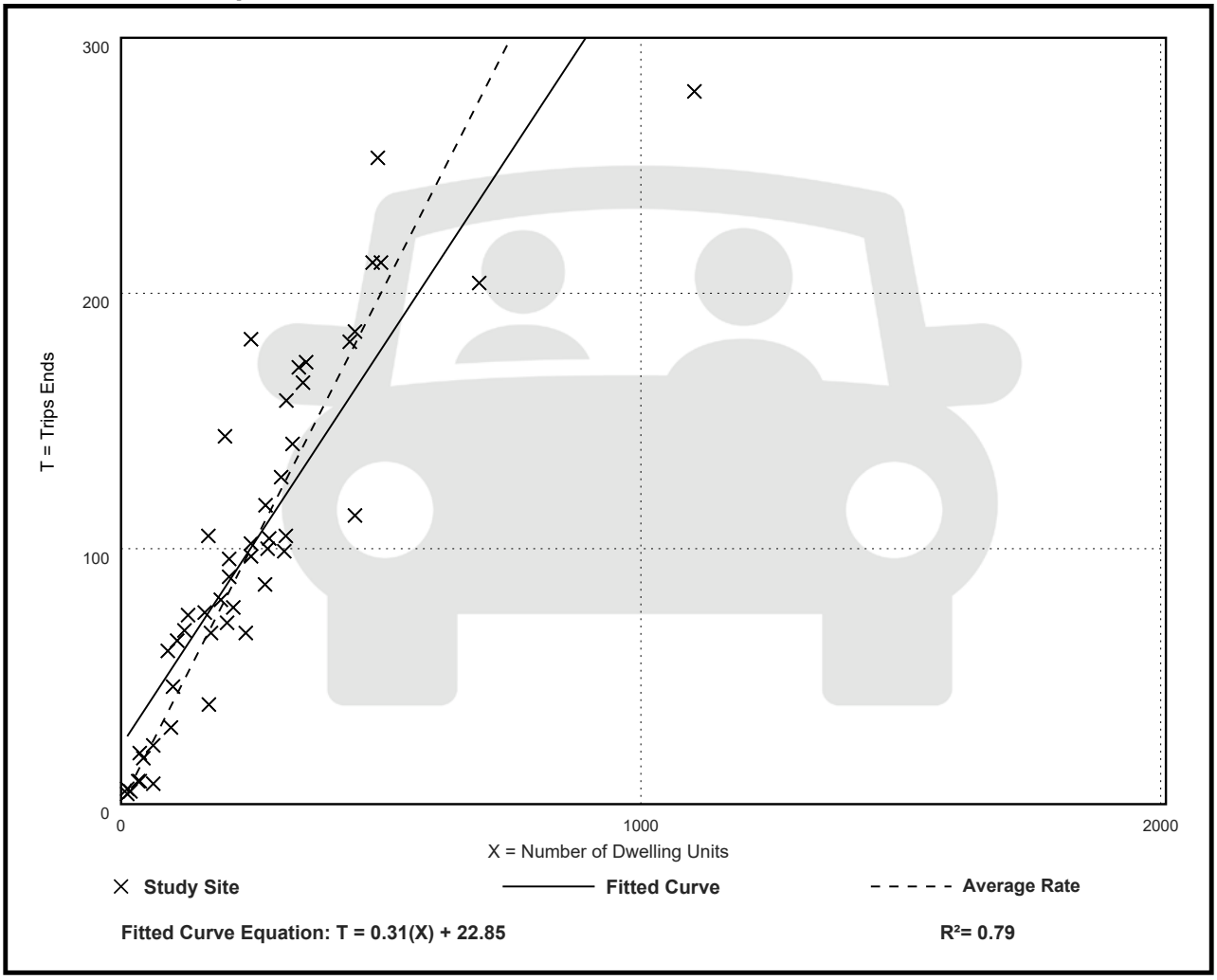
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



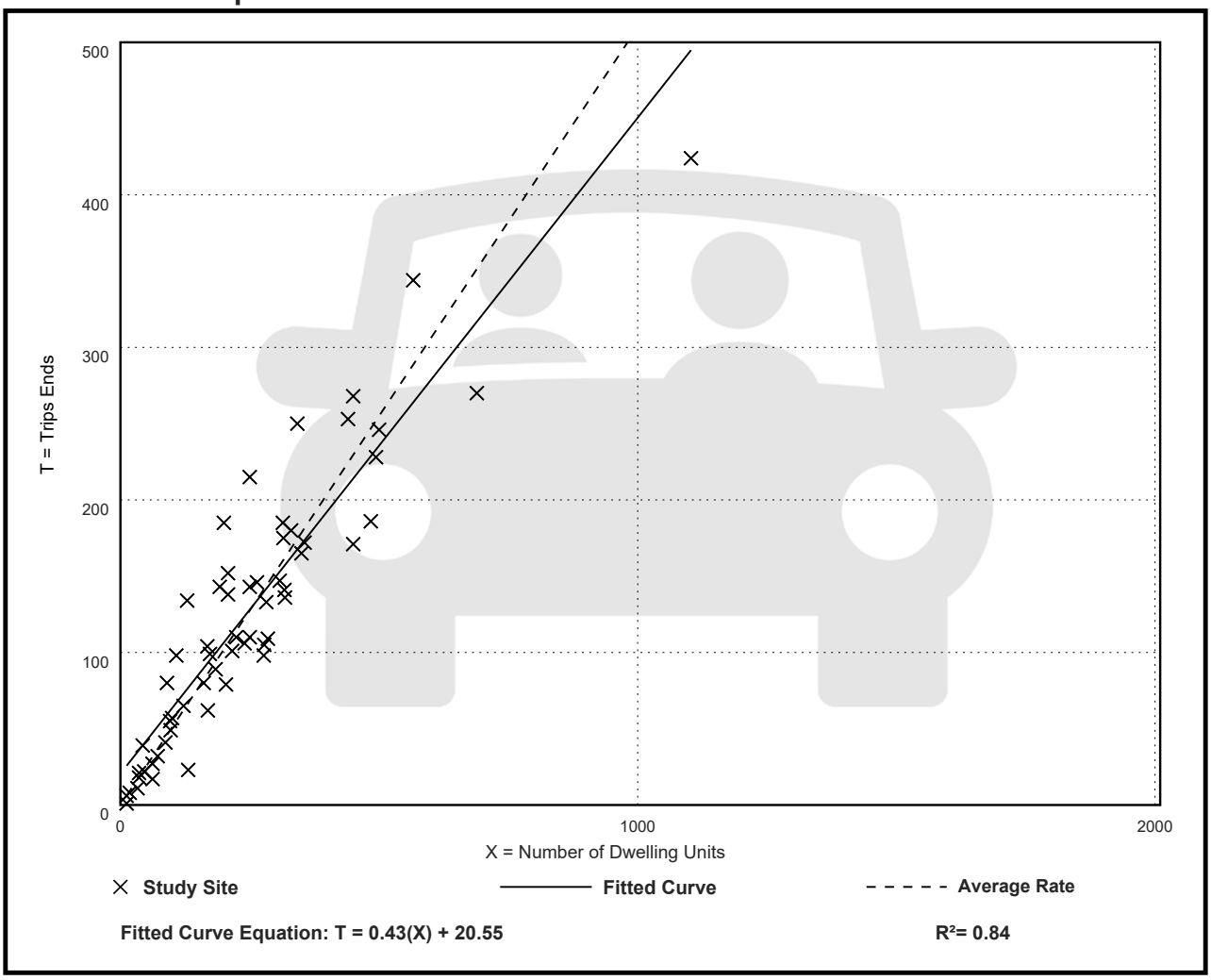
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Land Use: 942
Automobile Care Center

Description

An automobile care center houses numerous businesses that provide automobile-related services, such as repair and servicing, stereo installation, and seat cover upholstering. Quick lubrication vehicle shop (Land Use 941) and automobile parts and service center (Land Use 943) are related uses.

Additional Data

The sites were surveyed in the 1980s and the 1990s in California and Florida.

Source Numbers

267, 273, 439, 715

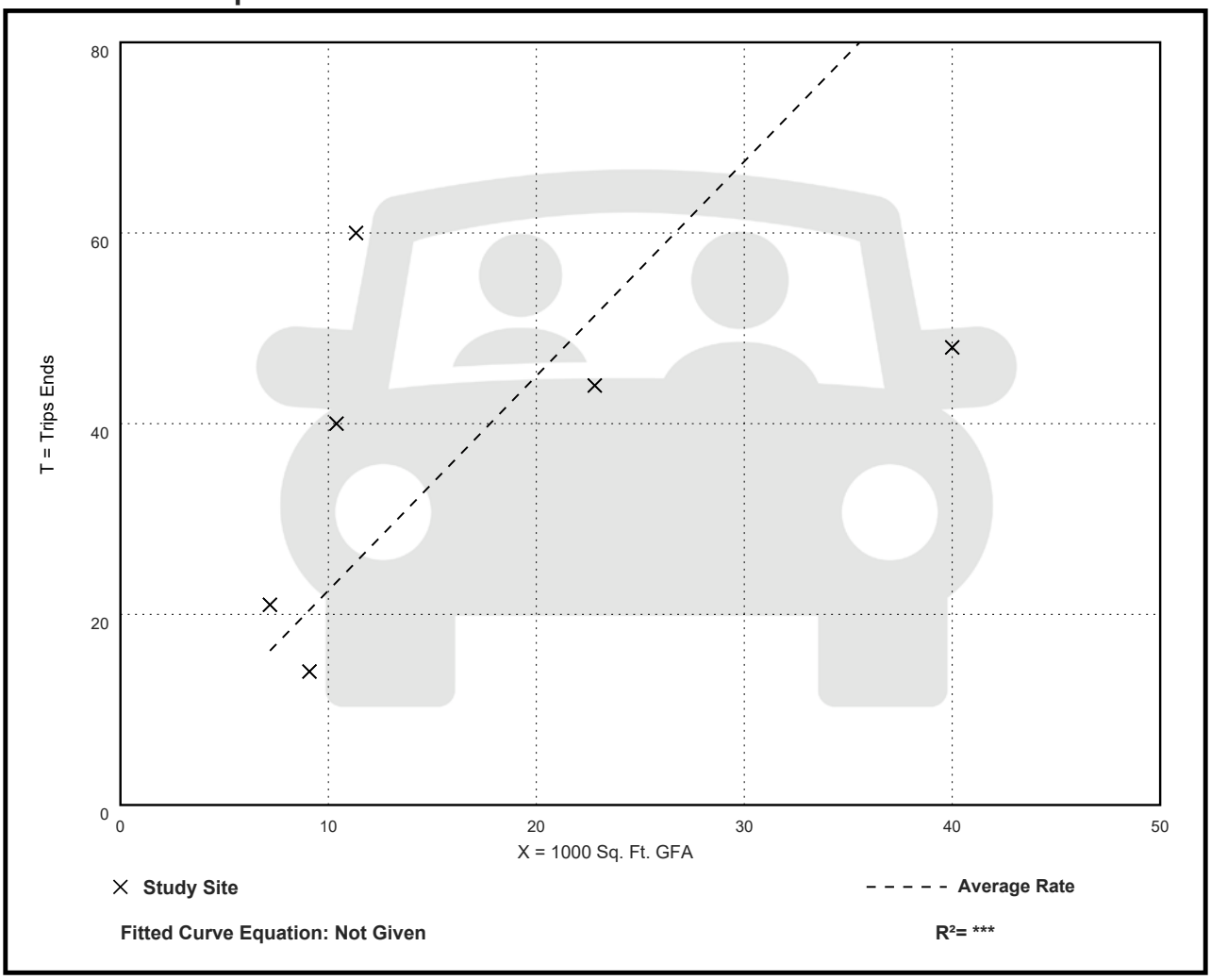
Automobile Care Center
(942)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GFA: 17
Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.25	1.20 - 5.30	1.49

Data Plot and Equation



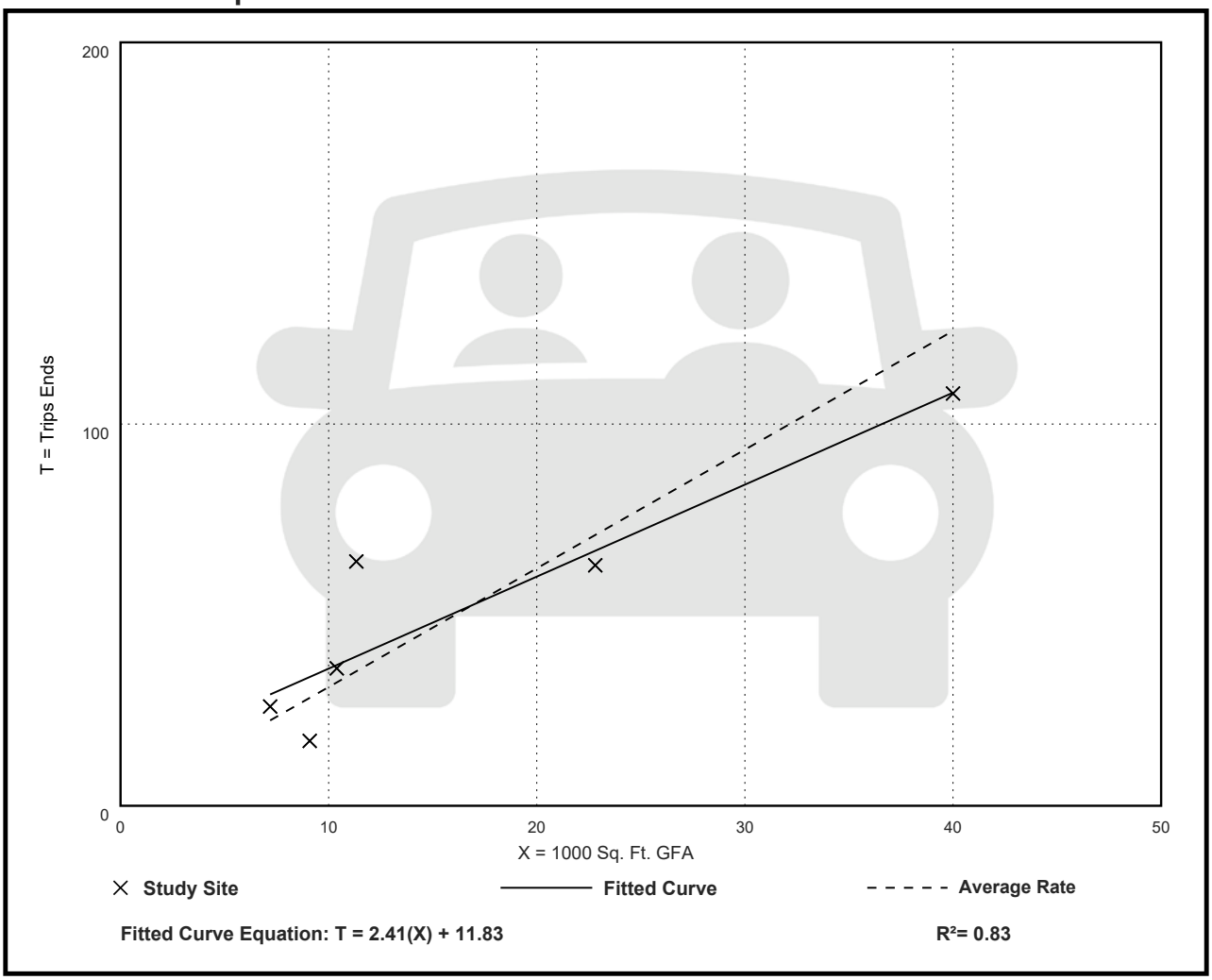
Automobile Care Center
(942)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GFA: 17
Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.11	1.87 - 5.65	1.09

Data Plot and Equation



Fitted Curve Equation: T = 2.41(X) + 11.83

R^2= 0.83

Attachment C

Los Angeles County Public Works Transportation Impact Analysis Guidelines



Los Angeles County Public Works

Transportation Impact Analysis Guidelines

July 23, 2020
Prepared by Public Works

Table of Contents

Section 1. - Introduction 3
Section 2. - Overall Steps 4
Section 3. - California Environmental Quality Act (CEQA) Transportation Impact Analysis Process 6
Section 3.1. - Development Projects 6
Section 3.1.1. - Introduction 6
Section 3.1.2. - Screening Criteria 6
Section 3.1.3. - Impact Criteria 8
Section 3.1.4. - Methodology 11
Section 3.1.5. - Mitigation 15
Section 3.2. - Transportation Projects 17
Section 3.2.1. - Introduction 17
Section 3.2.2. - Screening Criteria 17
Section 3.2.3. – Impact Criteria 19
Section 3.2.4. - Methodology 19
Section 3.2.5. - Mitigation 21
Section 4. – Site Access Studies 22
Section 4.1. – Operational Analysis 22
Section 4.1.1. - Introduction 22
Section 4.1.2. - Screening Criteria 22
Section 4.1.3. - Evaluation Criteria 22
Section 4.1.4. - Methodology 22
Section 4.1.5. – Recommended Action 25
Section 4.2 – Construction Phase Analysis 25
Section 4.2.1. - Introduction 25
Section 4.2.2. - Screening Criteria 25
Section 4.2.3. - Evaluation Criteria 26
Section 4.2.4. - Methodology 27
Section 4.2.5. - Recommended Action 27
Section 4.3. – Local Residential Street Cut-Through Analysis 27
Section 4.3.1. - Introduction 27
Section 4.3.2. - Screening Criteria 28
Section 4.3.3. - Methodology 29

Section 4.3.4. - Recommended Action 29
Section 4.4 - Additional Site Access Analysis 31
Section 4.4.1 - Introduction 31
Section 4.4.2. - Screening Criteria 31
Section 4.4.3. - Evaluation and Methodology 31
Section 4.4.4. - Recommended Actions 31
Section 5. - Study Format and Required Content 32
Section 5.1. - Project Description 32
Section 5.2. - Site Conditions 32
Section 5.3. - Analysis, Discussion, and Results 33
Section 5.4. – Mitigation Measures and Recommended Actions 33
Section 5.4.1. - Introduction 33
Section 5.4.2. - Transportation Demand Management Measures 34
Section 5.4.3. - Physical Infrastructure Improvements 34
Section 5.4.4. - Mitigation Monitoring and Reporting Program in CEQA Documents 34

Section 1. - Introduction

Public Works generally will require the preparation and submission of a Transportation Impact Analysis for projects that meet the following criteria:

- Development Projects:
  - Estimated to generate a net increase of 110 or more daily vehicle[1] trips.
- Transportation Projects:
  - Likely to induce additional vehicle[1] miles traveled (VMT) by increasing vehicle capacity.
- Projects for which a Transportation Impact Analysis is required by County ordinance; regulation; resolution; court order; or directive from the Board of Supervisors, Regional Planning Commission.

A Transportation Impact Analysis requires analyses and forecasting of impacts or deficiencies to the circulation system generated by the project. The Transportation Impact Analysis identifies feasible measures or corrective conditions to offset any impacts or deficiencies.

The Transportation Impact Analysis shall be prepared under the direction of, and be signed by, a Professional Engineer, registered in the State of California to practice either Traffic or Civil Engineering.

[1] The term vehicle refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty trucks should only be included in a traffic impacts analysis for modeling convenience and ease of calculation (e.g., where models or data provide combine auto and heavy-freight VMT) but should not contribute to a finding of significant traffic impact under any circumstances.

Section 2. - Overall Steps

The project applicant shall follow the general steps summarized below when preparing a transportation impact analysis for a discretionary development project or transportation project.

Step 1. Project Memo

The project applicant shall inform Public Works that a new Transportation Impact Analysis is being prepared. In this initial communication, the following information shall be provided:

A. Project Description – Provide a general description of the project, including size (defined by square footage per use and/or number of dwelling units) and use(s). The project description should include information on any phased construction and any unusual conditions. The project description shall specify a building address, Assessor's parcel number, and project title.

B. Project Site Plan – Submit the proposed project site plan, which shall clearly identify driveway or access location(s), loading/unloading areas, and parking design and circulation to help define the distribution of project trips. Considerations for traffic flow and movement should be designed and incorporated early in building and parking layout plans. To minimize and prevent last minute building design changes, project applicants should contact the Public Works Land Development Division and Public Works Traffic Safety and Mobility Division to determine the requirements for driveway width and internal circulation before finalizing the building and parking layout design.

Step 2. Other Agency Contacts

The project applicant shall consult with other agencies or adjacent jurisdictions (e.g., Caltrans, other cities, transit agencies, etc.) that may be affected by site access and travel demands generated by the project to ensure those agencies' transportation-related concerns and issues are properly addressed in the Transportation Impact Analysis. If, as part of site access and circulation evaluation (see Section 4), a Transportation Impact Analysis includes the evaluation of an intersection or intersections in an adjacent local jurisdiction, then any corrective actions deemed necessary to address circulation concerns should be reviewed by and confirmed in writing by that jurisdiction. Written confirmation of consultation with all affected agencies is required.

Step 3. Scoping Document

The project applicant shall prepare and submit a Scoping Document to Public Works through the EPIC-LA portal. The Scoping Document describes the

assumptions and parameters that shall be included in the Transportation Impact Analysis including any analysis requirements from other affected jurisdictions identified in Step 2.

Step 4. Data Collection

The project applicant shall gather qualitative and quantitative data needed to support the required analyses and components of the Transportation Impact Analysis. Traffic count data shall be collected in accordance with standards and methods established in the Transportation Impact Analysis Guidelines.

Step 5. Transportation Impact Analysis Submittal

The project applicant shall submit the completed Transportation Impact Analysis to Public Works through the EPIC-LA portal and ensure that all subsequent submittals of the Transportation Impact Analysis are dated and timestamped.

Step 6. Transportation Impact Analysis Confirmation of Findings Letter

Public Works will prepare and distribute a Transportation Impact Analysis Confirmation of Findings Letter after the fees have been submitted and the Transportation Impact Analysis has been reviewed and approved.

The Transportation Impact Analysis Confirmation of Findings Letter will be limited to summarizing the findings and requirements for the proposed project. Additional fees/deposits may be required should the project applicant request findings and requirements for additional project alternatives.

Step 7. Mitigation and Monitoring

The project applicant may be responsible for ongoing reporting, depending on the nature of the mitigation measures and corrective actions to be implemented by the project. Reporting and monitoring of Transportation Demand Management (TDM) measures implemented by the project to improve mobility options at and around a project site may also be required and will be described in the Transportation Impact Analysis Confirmation of Findings Letter.

Section 3. - California Environmental Quality Act (CEQA) Transportation Impact Analysis Process

Section 3.1. - Development Projects

Section 3.1.1. - Introduction

The updated CEQA Guidelines certified and adopted by the California Natural Resources Agency in December 2018 are now in effect. Accordingly, Public Works recognizes the need to provide information based on guidance from the Office of Planning and Research and the California Air Resources Board on the assessment of vehicle miles traveled (VMT), thresholds of significance, and mitigation measures for development projects and land use plans in accordance with the amended Appendix G question below:

- For a development project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?

For development projects, the intent of this question is to assess whether a proposed project or plan adequately reduces total VMT. Public Works provides the following guidance regarding screening and impact criteria to address this question. The following screening criteria and impact criteria are only meant to serve as guidance for projects to determine whether a Transportation Impact Analysis should be performed, and the criteria to determine if a project generates a significant transportation impact. The criteria shall be determined on a project-by-project basis as approved by Public Works.

Section 3.1.2. - Screening Criteria

Section 3.1.2.1. - Non-Retail Project Trip Generation Screening Criteria

If the answer is no to the question below, further analysis is not required, and a less than significant determination can be made.

- Does the development project generate a net increase of 110 or more daily vehicle[1] trips[2]?

A project's daily vehicle trip generation should be estimated using the most recent edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. If the project proposed land use is not listed in the ITE Trip Generation Manual, please submit a trip generation study to Public Works for review and approval.

Section 3.1.2.2. - Retail Project Site Plan Screening Criteria

A project that contains a local serving retail use is assumed to have less than significant VMT impacts for the retail portion of the project. If the answer to the following question

[2] As referenced in the Governor's Office of Planning and Research (OPR), *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018.

is no, a less than significant determination can be made for the portion of the project that contains retail uses.

- Does the project contain retail uses that exceed 50,000 square feet of gross floor area[2]?

However, if the retail project is part of a mixed-use project, then the remaining portion of the project may be subject to further analysis in accordance with other screening criteria in Section 3.1. Projects that include retail uses in excess of the Retail Project Site Plan Screening Criteria need to evaluate the entirety of the project's VMT.

Section 3.1.2.3. – Proximity to Transit Based Screening Criteria

If a project is located near a major transit stop or high-quality transit corridor, the following question should be considered:

- Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor[2]?

If the answer to the question above is yes, then the following subsequent questions should be considered:

- Does the project have a Floor Area Ratio[2] less than 0.75?
- Does the project provide more parking than required by the County Code[2]?
- Is the project inconsistent with the SCAG RTP/SCS[2]?
- Does the project replace residential units set aside for lower income households with a smaller number of market-rate residential units[2]?

If the answer to all four questions is no, further analysis is not required, and a less than significant determination can be made.

To determine the proposed change in residential units, the total number of lower income housing units that exist on the project site should be counted and compared to the total number of lower income and market-rate residential units proposed by the project. If there is a net decrease in residential units, the Proximity to Transit Based Screening Criteria cannot be utilized.

Section 3.1.2.4. – Residential Land Use Based Screening Criteria

Independent of the screening criteria for non-retail and retail projects, certain projects that further the State's affordable housing goals are presumed to have less than significant impact on VMT. If the project requires a discretionary action and the answer is yes to the question below, further analysis is not required, and a less than significant determination can be made.

- Are 100% of the units, excluding manager's units, set aside for lower income households[2]?

Section 3.1.3. - Impact Criteria

The project has a potentially significant VMT impact if it meets one or more of the criteria listed below. The impact criteria below are considered as potential options that may be selected as thresholds for determining significance. These impact criteria below are based on guidance published by OPR[2] and CARB[3] but their applicability to a specific project shall be justified with substantial evidence and is not presumed to be appropriate.

- Residential Projects The project's residential VMT[4] per capita would not be 16.8%[3] below the existing residential VMT[4] per capita for the Baseline Area in which the project is located (Table 3.1.3.-1),
- Office Projects. The project's employment VMT[5] per employee exceeding would not be 16.8%[3] below the existing employment VMT[5] per employee for the Baseline Area in which the project is located (see Table 3.1.3.-1),
- Regional Serving Retail Projects. The project would result in a net increase[2] in existing total VMT (see Table 3.1.3.-1),
- Land Use Plans. The plan total VMT per service population[6] (residents and employees) would not be 16.8%[3] below the existing VMT per service population[6] for the Baseline Area in which the plan is located (see Table 3.1.3.-1),
- For other land use types, please contact Public Works to determine which of the above are an appropriate threshold of significance to be utilized (see Table 3.1.3.-1).

Table 3.1.3-1 provides the Baseline VMT for the North and South areas of the County at the time these guidelines were prepared. The Baseline VMT applied in the Transportation Impact Analysis should be consistent with the year that the transportation study begins as defined in the Scoping Document.

[3] As referenced by the VMT reduction goals discussed in the California Air Resources Board, 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Goals, January 2019, Figure 3.
[4] Residential VMT is the VMT generated by Home-Based Work and Home-Based Other trip productions.
[5] Employment VMT is the VMT generated by Home-Based Work trip attractions.
[6] Service population is the sum of the number residents and the number of employees

Table 3.1.3.-1 – Baseline VMT for North and South County

Baseline Area	Residential VMT per Capita	Employment VMT per Employee	Total VMT per Service Population
North County	22.3	19.0	43.1
South County	12.7	18.4	31.1

The geographic boundaries for the North County and South County Baseline Areas are shown in Figure 3.1.3-1.

Figure 3.1.3.-1 North and South County Baseline VMT Boundaries

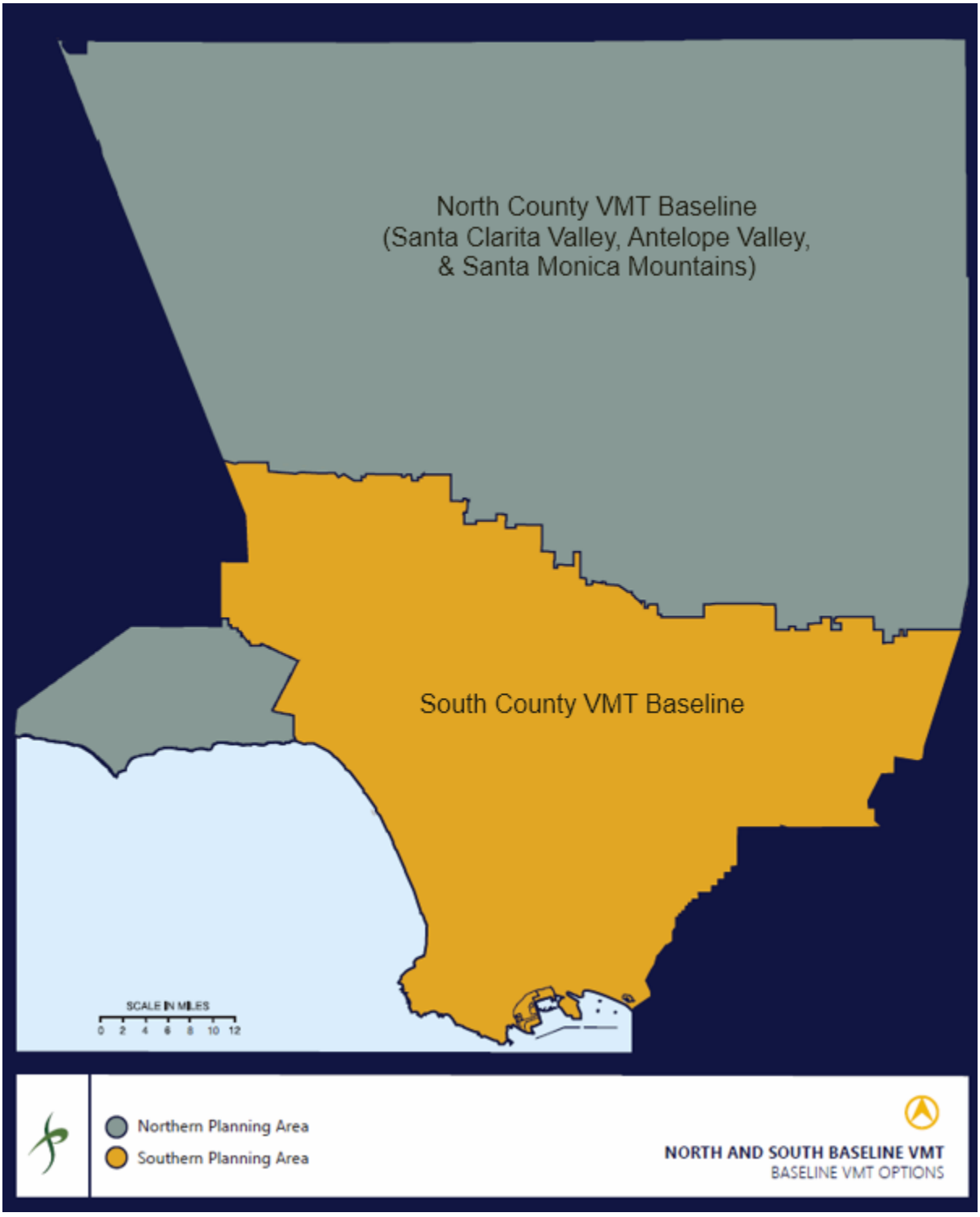


Table 3.1.3.-2 – VMT Impact Criteria (16.8% Below Area Baseline)

Baseline Area	Residential VMT per Capita	Employment VMT per Employee	Total VMT per Service Population (residents and employees)
North County	18.6	15.8	35.9
South County	10.6	15.3	25.9

Section 3.1.4. - Methodology

Section 3.1.4.1 - Evaluation

Screening and impact evaluation should be conducted for the following types of development projects:

- Non-Retail Land Uses:
  - Residential Land Uses:
    - Single-family housing,
    - Multi-family housing,
    - Affordable housing (for lower income households).
  - Office, Manufacturing, or Institutional Land Uses:
    - General office,
    - Medical office,
    - Light industrial,
    - Manufacturing,
    - Warehousing/self-storage,
    - K-12 schools,
    - College/university,
    - Hotel/motel.
- Retail Land Uses:
  - General retail,
  - Furniture store,
  - Pharmacy/drugstore,
  - Supermarket,
  - Bank,
  - Health club,
  - Restaurant,
  - Auto repair,
  - Home improvement superstore,
  - Discount store,
  - Movie theater.

The land uses described above are not intended to be inclusive of every project-type reviewed by Public Works and subject to CEQA. For these and all other land uses, the appropriate screening criteria and impact evaluation shall be determined on a project-by-project basis.

Section 3.1.4.2. - Project Impact Determination

- Residential Projects: Daily vehicle[1] trips, daily VMT, and daily residential VMT[4] per capita for residential projects should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT (see Section 3.1.5 regarding TDM strategies),

- Office Projects: Daily vehicle[1] trips, daily VMT, and daily employment VMT[5] per employee for office projects should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT,

- Regional Serving Retail Projects: The Scoping Document prepared by the project applicant and Public Works will outline one of the following methods for impact determination:

    - Preparation of a market-study-based transportation analysis submitted by the project applicant that demonstrates the project area is underserved for the proposed retail use and that the project will shorten existing shopping trips by creating an intervening location between trip origins and current retail destinations.

    - Run the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with and without the project. Since the overall number of trips in the model is based on home-based trips and is balanced to home-trip productions, the total number of trips will not be influenced materially by the introduction of the additional retail space. Rather, the model will redistribute home-shopping trips from other retail destinations to the proposed retail destination,

        - If the project is entirely retail, the following steps apply:
            - Determine the traffic analysis zone (TAZ) in which the project is located,

[7] *Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report*, Fehr & Peers, June 2020

- Convert the project retail land uses into the appropriate employment categories utilized in the model and adjust the socioeconomic parameters in the TAZ appropriately to reflect removal of existing land uses and addition of the project,
- Run the four-step model process for the model existing base year for the four-time periods in the model (AM peak period, midday period, PM peak period, nighttime period) for the base ("no project") scenario and for the "plus project" scenario,
- Calculate total VMT on the model network for each time period and sum to determine daily VMT for each scenario. The total VMT should capture both employee and home-shopping trips. Subtract the daily VMT for the base scenario from the daily VMT for the "plus project" scenario to determine the net change in daily VMT.

▪ If the proposed project is a mixed-use development including more than 50,000 square feet of retail, conduct steps similar to those described above. However, first create a "without retail" model scenario that includes the rest of the project's proposed land uses and then create and run the four-step model for this "with retail" scenario. Subtract the daily VMT for the "without retail" scenario from the daily VMT for the "with retail" scenario to determine the net change in daily VMT.

- Land Use Plans: Daily vehicle[1] trips, daily VMT, and daily total VMT per service population[6] for land use plans should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT,

- Unique Land Uses: Some projects will not fit into one of the above categories. In such cases, a customized approach may be required to estimate daily trips and VMT. The methodology and thresholds to be used in such cases should be developed in consultation with and approved by Public Works staff at the outset of the study,

- Mixed-Use Projects: The project VMT impact should be considered significant if any (one or all) of the project land uses exceed the impact criteria for that particular land use, taking credit for internal capture. In such cases, mitigation options that reduce the VMT generated by any or all of the land uses could be considered.

Section 3.1.4.3. - Cumulative Impacts Determination

Land use projects should consider both short- and long-term project effects on VMT. Short-term effects will be evaluated in the detailed project-level VMT analysis. Long-term, or cumulative effects is determined through consistency with the SCAG RTP/SCS. The

RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and GHG reduction targets. As such, projects that are consistent with this plan in terms of development location, density, and intensity, are part of the regional solution for meeting air pollution and GHG goals. Projects that are deemed to be consistent would have a less than significant cumulative impact on VMT. Development in a location where the RTP/SCS does not specify any development may indicate a significant impact on transportation. However, if a project does not demonstrate a significant impact in the project impact analysis, a less than significant impact in the cumulative impact analysis can also be determined. Projects that fall under the RTP/SCS's efficiency-based impact thresholds are already shown to align with the long-term VMT and greenhouse gas reduction goals of SCAG's RTP/SCS.

Land use projects that: (1) demonstrate a project impact after applying an efficiency based VMT threshold and (2) are not deemed to be consistent with the SCAG RTP/SCS could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether the project's cumulative impact on VMT is significant. This analysis could be conducted by running the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with the cumulative "no project" scenario representing the RTP/SCS cumulative year conditions and the cumulative "plus project" scenario representing the reallocation of the population and/or employment growth based on the land supply changes associated with the proposed project. Baseline Area VMT, residential VMT per capita, or employment VMT per employee (depending on project type) would be calculated for both scenarios, and any increase in VMT, residential VMT per capita, or employment VMT per employee (depending on project type) above that which was forecasted in the RTP/SCS would constitute a significant impact.

When specifically evaluating the VMT impacts of regional-serving retail, the cumulative analysis would include additional steps under the project impact methodology to compare a cumulative "plus project" scenario with the cumulative "no project" scenario. The cumulative "no project" scenarios represents the adopted RTP/SCS cumulative year conditions (as incorporated into the SCAG RTP/SCS model). This would involve the following additional steps:

- Determine the traffic analysis zone (TAZ) in which the project is located,
- Convert the project land uses into the appropriate employment categories utilized in the RTP/SCS horizon year model. Adjust the socioeconomic parameters in the TAZ appropriately to reflect removal of the existing land uses and addition of the project,
- Run the four-step model process for the model's cumulative "no project" scenario for the four-time periods in the model (AM peak period, midday period, PM peak period, nighttime period). Then do the same for the base cumulative "no project" scenario and for the cumulative "plus project" scenario,
- Calculate total VMT on the model's network for each time period as well as the sum total to determine daily VMT for each scenario. Subtract the daily VMT for the

base cumulative “no project” scenario from the daily VMT for the cumulative “plus project” scenario to determine the net change in daily VMT.

Land use plans that: (1) demonstrate a project impact after applying an efficiency based VMT threshold and (2) are not deemed to be consistent with the SCAG RTP/SCS could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether the Plan’s cumulative impact on VMT is significant. This analysis could be conducted by running the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with the cumulative “no project” scenario representing the RTP/SCS cumulative year conditions and the cumulative “plus project” scenario representing the reallocation of the population and/or employment growth based on the land supply changes associated with the proposed plan. Total VMT and VMT per service population would be calculated for both scenarios, and any increase in VMT above that which was forecasted in the RTP/SCS would constitute a significant impact.

Section 3.1.5. - Mitigation

Section 3.1.5.1. - Development Project Mitigations

Potential mitigation measures for a development project’s VMT impacts can include the following:

- Transportation demand management (TDM) strategies beyond those that will be included as project design features. These strategies shall be demonstrated to be effective in reducing VMT. Some of these may include, but are not limited to, the following described in Table 3.1.5-1 below. Substantial evidence should be provided to the Public Works to support the claimed effectiveness of the measure(s),

Table 3.1.5-1: TDM Strategies

Category	Measure
Commute Trip Reduction	• Commute Trip Reduction Programs with Required Monitoring • Ride Sharing Programs • Subsidized or Discounted Transit Programs • Telecommuting • Alternative Work Schedules
Land Use/Location	• Increase Transit Accessibility
Parking Policy/Parking	• Unbundle parking
Neighborhood/Site Enhancement	• Pedestrian Network Improvements • Traffic Calming Measures • Car Sharing Programs

- Additional TDM measures beyond those listed above may be considered, if such measure is used to quantitatively reduce a project's VMT estimate. Substantial evidence should be provided to Public Works to support the effectiveness of the measure,
- For a single-use project, introducing compatible additional land uses to allow for internalization of trips,
- For a mixed-use project, modifying the project's land use mix to increase internalization of trips, reduce external trip generation, and serve the local community.

Section 3.1.5.2. - Land Use Plans Mitigations

Potential mitigation measures for land use plan VMT impacts can include:

- Reallocation of future land use development to increase land use variety and density in transportation-efficient locations (e.g., proximity to jobs and housing, proximity to transit, proximity to services),
- Measures to enhance the public transit system and/or connections to the system including active transportation mode improvements, such as infrastructure improvements, programs, or education and marketing,
- Measures to encourage reduced reliance on automobile trips and encourage transit and active transportation modes.

Section 3.2. - Transportation Projects

Section 3.2.1. - Introduction

Transportation projects that increase vehicular capacity can lead to additional travel on the roadway network, which can include induced vehicle travel due to factors such as increased speeds and induced growth. To provide consistency across transportation projects and achieve the County's sustainability goals, the screening criteria for transportation impacts is based on the question below:

- For a transportation project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?

For transportation projects, the intent is to assess whether a transportation project induces substantial additional VMT. The following screening criteria and impact criteria are meant to serve as guidance for projects to determine whether a Transportation Impact Analysis should be performed, and whether a project generates a significant transportation impact. The criteria will be considered on a project-by-project basis as approved by Public Works.

Section 3.2.2. - Screening Criteria

If the answer is no to the following question, further analysis will not be required, and a less than significant impact determination can be made for that threshold:

- Would the project include the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle (HOV) lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than one mile in length designed to improve roadway safety)[2]?

Transit and active transportation projects and projects that reduce roadway capacity generally reduce VMT and, therefore, are presumed to cause a less-than-significant impact. Transportation projects that are not likely to lead to a substantial or measurable increase in vehicle travel and would, therefore, not be required to prepare an induced travel analysis supported by the OPR technical advisory[2], are listed below:

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity,
- Roadside safety devices or hardware installation such as median barriers and guardrails,

- Roadway shoulder enhancements to provide "breakdown space" - dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes,
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety,
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes,
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit,
- Conversion of existing general-purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel,
- Addition of a new lane that is permanently restricted to use only by transit vehicles,
- Reduction in number of through lanes,
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane to separate preferential vehicles (e.g., high-occupancy vehicles [HOV], high-occupancy toll [HOT], or trucks) from general vehicles,
- Installation, removal, or reconfiguration of traffic control devices,
- Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow,
- Timing of signals to optimize vehicle, bicycle or pedestrian flow,
- Installation of roundabouts or traffic circles,
- Installation or reconfiguration of traffic calming devices,
- Adoption of, or increase, in tolls,
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase.
- Initiation of new transit service,
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes,
- Removal or relocation of off-street or on-street parking spaces,
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs),
- Addition of traffic wayfinding signage,
- Rehabilitation and maintenance projects that do not add motor vehicle capacity,

- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way,
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non- motorized travel,
- Installation of publicly available alternative fuel/charging infrastructure,
- Adding of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor.

Section 3.2.3. – Impact Criteria

The project has a potentially significant VMT impact if it meets the criteria listed below. The impact criteria below are considered as a potential option that may be selected as thresholds for determining significance. The impact criteria below is based on guidance published by OPR[2], but their applicability to a specific project shall be justified with substantial evidence and is not presumed to be appropriate.

- The project will increase the project area VMT, as measurable by the SCAG RTP/SCS base year Travel Demand Forecasting Model plus an induced travel elasticity factor per lane mile[2].

Section 3.2.4. - Methodology

Section 3.2.4.1. - Project Impacts Determination

The County utilizes the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) that is suitable for assessing change in VMT due to a given roadway project in its land use/transportation context. This model should be used to calculate the change in VMT from transportation projects that, by definition, are considered to have the potential for inducing VMT.

For the direct measurement of project impacts, the SCAG RTP/SCS model's base year network should be modified to reflect the vehicle capacity-enhancements that would result from the proposed transportation project. The base year model should be run with and without the proposed transportation project, without adjusting the model's land use inputs, to isolate the potential change in network VMT with the project as compared to the baseline. The assessment should cover the full area in which driving patterns are expected to change and include supporting evidence for why such area was selected.

The SCAG RTP/SCS model is capable of adjusting trip lengths, mode split, and route choice in response to network changes. However, the model does not include the ability to modify land use in response to changes to the transportation system and will not increase trips to reflect latent demand. Therefore, such induced travel should be estimated by applying an induced demand elasticity factor available from appropriate academic literature.

Accordingly, the VMT impact of a transportation project shall be calculated as the direct change in VMT as estimated by the SCAG RTP/SCS model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with and without the project plus a factor for induced demand calculated as follows:

- Run the SCAG RTP/SCS model with and without the transportation project to isolate the potential direct change in network VMT due to changes in trip length, mode split, and route choice,
- Using the SCAG RTP/SCS model, determine the total modeled lane-miles over the project area that fully captures travel behavior changes resulting from the project,
- Determine the percent change in total lane miles that will result from the project,
- Using the SCAG RTP/SCS model, determine the total existing VMT over that same area,
- Multiply the percent increase in lane miles by the existing VMT and then multiply that by the elasticity factor from the latest induced travel literature to determine the induced VMT,
- Add the induced VMT to the modeled change in network VMT due to trip length, mode split, and route choice.

Section 3.2.4.2. - Cumulative Impacts Determination

Analyses should consider both short- and long-term project effects on VMT. Short-term effects will be evaluated in the project-level VMT analysis described above. Long-term, or cumulative, effects will be determined through consistency with the SCAG RTP/SCS. The RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas (GHG) reduction targets. As such, transportation projects that are included in this plan are part of the regional solution for meeting air pollution and GHG reduction goals. Transportation projects that are deemed to be consistent would have a less than significant cumulative impact on VMT.

Transportation projects that are not deemed to be consistent could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether such a project's cumulative impact on VMT is significant. This analysis would be conducted by running the RTP/SCS cumulative year conditions and the cumulative "plus project" scenario (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) incorporating the network changes due to the proposed transportation project. An induced demand elasticity factor should be applied to any increase in VMT thus determined, and any increase in VMT would constitute a significant impact because it could jeopardize regional air quality conformity or GHG reduction findings.

Section 3.2.5. – Mitigation

Mitigation measures that could reduce the amount of increased vehicle travel induced by capacity increases could include, but not be limited to, the following measures:

- Converting existing general-purpose lanes to HOV lanes, high occupancy toll (HOT) lanes, toll lanes, or bus lanes to encourage carpools and fund transit improvements,
- Implementing or funding off-site mobility improvements, including the initiation of transportation management organizations (TMOs),
- Implementing intelligent transportation systems (ITS) strategies to improve passenger throughput on existing lanes,
- Additional measures beyond those listed above, may be considered, if such measures are used to quantitatively reduce a project's VMT estimate, substantial evidence should be provided to support the claimed effectiveness of the measure(s).

Section 4. – Site Access Studies

Section 4.1. – Operational Analysis

Section 4.1.1. - Introduction

The site access and circulation constraints related to the provision of access to and from the project site may be analyzed as part of the project's environmental review. The analysis should address the site access and circulation needs of vehicles, bicycles and pedestrians. If the operation analysis is determined to be necessary in consultation with Public Works, operational performance may be quantified for primary site access points, unsignalized intersections integral to the project's site access, and signalized intersections in the vicinity of the project site.

Section 4.1.2. - Screening Criteria

Section 4.1.2.1. - Development Projects

For development projects, if the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect project access and circulation:

- Is the project required to submit a Transportation Impact Analysis?
- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning?

Section 4.1.3. - Evaluation Criteria

Section 4.1.3.1. - Operational Deficiencies

The Transportation Impact Analysis should include a quantitative evaluation of the project's expected access and circulation operations. Project access is considered constrained if the project's traffic would contribute to unacceptable queuing at nearby signalized intersections. Unacceptable or extended queuing may be defined as follows:

- Spill over from turn pockets into through lanes,
- Spill over into intersections.

Section 4.1.4. - Methodology

Section 4.1.4.1. - Level of Service and Queueing Methodology

Intersection level of service (LOS) and queueing methodologies from the latest edition of the Transportation Research Board Highway Capacity Manual (HCM) should be used to evaluate the operation of the project driveways and nearby intersections. For individual

isolated intersection analysis, the use of software packages such as Synchro, Vistro, or HCS that implement the HCM methodologies is acceptable.

Where oversaturated conditions currently exist, the operational analysis should be conducted using Synchro/SimTraffic or VISSIM simulation models to more accurately reflect the effect of downstream congestion on intersection operations. VISSIM should be used in areas with transit lanes or with high levels of pedestrians conflicting with vehicle turning movements

Section 4.1.4.2. - Study Area

Study locations should be determined in consultation with Public Works and should include:

- All primary project driveway(s),
- Unsignalized and/signalized intersections that are adjacent to the project or that are expected to be integral to the project's site access and circulation plan,
- Additional intersections may be necessary as determined by Public Works.

For most projects, analyze traffic for both the a.m. and p.m. weekday peak hours as determined by 24-hour traffic counts. For some projects, expanding the analysis to include midday or weekend periods may be appropriate if these are expected to be the prime periods of trip generation for the project.

Section 4.1.4.3. - Traffic Counts

Traffic counts should generally be conducted per the following guidance and by Section 4.1.4.2., unless otherwise directed by Public Works:

- Turning movement data at the study intersections:
    - Should be collected in 15-minute intervals,
    - Must include vehicle classifications, pedestrian volume counts, and bicycle counts,
    - Must include a minimum or 2 hours of traffic counts for each of the peak hours,
    - Must be taken on Tuesdays, Wednesdays or Thursdays,
    - Must exclude holidays, and the first weekdays before and after the holiday,
    - Must be taken on days when local schools or colleges are in session,
    - Must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents),
- Traffic counts used from other traffic studies in the area may be use if they are reviewed and approved by Public Works.

When simulation analyses are to be conducted, obtain traffic speed and/or travel time data during peak periods to aid in calibration of the simulation model.

Section 4.1.4.4. - Project Trip Distribution

Distribution patterns for project trips should be determined considering a number of factors including, but not limited to, the following:

- Characteristics of the street system serving the project site,
- Level of accessibility of routes to and from the proposed project site,
- Locations of employment and commercial centers,
- Locations of residential areas.

The Transportation Impact Analysis shall include map(s) showing project trip distribution percentages (inbound and outbound) at the study intersections, and project driveway(s). This map shall be pre-approved by Public Works and included in the Transportation Impact Analysis Scoping Document.

Section 4.1.4.5. - Traffic Forecasts

The Transportation Impact Analysis shall estimate traffic conditions for the study horizon year selected during the scoping phase and recorded in the executed Scoping Document. The study shall clearly identify the horizon year and annual ambient growth rate used for the study. For development projects constructed in phases over several years, the Transportation Impact Analysis should analyze intermediary milestones before the buildout and completion of the project. The annual ambient growth rate shall be determined by Public Works staff during the scoping process and can be based on the most recent SCAG Regional Transportation Model or other empirical information approved by Public Works.

The Transportation Impact Analysis shall consider trip generation for known development projects within one-half mile (2,640 foot) radius of the farthest outlying study intersections. Consultation with the Department of Regional Planning or other planning agencies will be required to compile a related projects list.

The traffic forecasts for the project access and circulation constraints are determined by adding project-generated trips to future base traffic volumes, including ambient growth and related projects and conducting the operational analysis.

Any programmed and funded transportation system improvements that are expected to be implemented on or before the project buildout year should be identified in the study, in consultation with Public Works. If programmed improvements include a modification to the existing lane configuration at any of the study intersections, then the study should identify these changes and include the revised lane configuration in the LOS calculations for all future scenarios.

Section 4.1.5. – Recommended Action

Potential corrective actions for project access and circulation constraints can include, but are not limited to:

- Installation of a traffic signal or stop signs or electronic warning devices at site access points,
- Redesign and/or relocation of project access points,
- Redesign of the internal access and circulation system,
- Installation of stop-signs and pavement markings internal to the site,
- Restriction or prohibition of turns at site access points,
- Installation of new traffic signal, left-turn signal phasing, or other vehicle flow enhancements at nearby intersections,
- Reconfiguration of study intersections that reduces gridlock and unsafe conflict points.

Any of the above-mentioned actions shall be recommended in accordance with California Manual on Uniform Traffic Control Devices (CA MUTCD) warrants and criteria, or other criteria deemed appropriate by Public Works.

Section 4.2 – Construction Phase Analysis

Section 4.2.1. - Introduction

This category addresses activities associated with project construction and major in-street construction of infrastructure projects.

Section 4.2.2. - Screening Criteria

If the answer is yes to any of the following questions, further analysis will be required to assess if the project could negatively affect existing pedestrian, bicycle, transit, or vehicle circulation:

- For projects that require construction activities to take place within the right-of-way of a highway, would it be necessary to close any temporary lanes, alleys, or streets for more than one day (including day and evening hours, and overnight closures if on a residential street)?
- For projects that require construction activities to take place within the right-of-way of a Local Street, would it be necessary to temporarily close any lanes, alleys, or streets for more than seven days (including day and evening hours, and including overnight closures if on a residential street)?
- Would in-street construction activities result in the loss of any vehicle, bicycle, or pedestrian access, including loss of existing bicycle parking to an existing land use for more than one day, including day and evening hours and overnight closures if access is lost to residential units?
- Would in-street construction activities result in the loss of any ADA access to an existing transit station, stop, or facility (e.g., layover zone)?

- Would in-street construction activities restrict access to any bus stops for more than one day, or necessitate any rerouting of a bus route?

- Would construction of a project interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas?

Please note, that further analysis may determine that a project construction analysis may be required as determined by Public Works.

Section 4.2.3. - Evaluation Criteria

Factors to be considered as part of the construction phase analysis are: location of the project site, functional classification of the adjacent street, availability of alternate routes or additional capacity, temporary loss of bicycle parking, temporary loss of bus stops or rerouting of transit lines, duration of temporary loss of access, affected land uses, and magnitude of the temporary construction activities.

- Temporary transportation constraints:
    - Length of time of temporary street closures or closures of one or more travel lanes,
    - Classification of the street (major arterial, state highway) affected,
    - Existing congestion levels on the affected street segments and intersections,
    - Direct access to freeway on- or off-ramp or other state highway,
    - Presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street,
- Temporary loss of access:
    - Length of time of any loss of pedestrian or bicycle circulation outside the construction zone,
    - Length of time of any loss of vehicular, bicycle, or pedestrian access to a parcel within the construction zone,
    - Length of time of any loss of ADA pedestrian access to a transit station, stop, or facility,
    - Availability of nearby vehicular or pedestrian access within 1/2 mile of the lost access,
- Temporary Loss of Bus Stops or Rerouting of Bus Lines:
    - Days and times during which an existing bus stop would be unavailable or existing service would be interrupted,
    - Availability of a nearby location (within 1/2 mile) to which the bus stop or route can be temporarily relocated,
    - Existence of other bus stops or routes with similar routes/destinations within a 1/2- mile radius of the affected stops or routes,
    - Time of interruption on a weekday, weekend or holiday, and whether the existing bus route typically provides service on those day(s).

Section 4.2.4. – Methodology

Describe the physical setting, including the classification of adjacent streets, on-street parking conditions, including bicycle parking, in the immediate vicinity of the construction project, a description of the land uses potentially affected by construction, and an inventory of existing transit lines, bus stops, transit stations, and transit facilities within a 1/2-mile radius of the construction site. Review proposed construction procedures/plans to determine whether construction activity within the street right-of-way would require any of the following:

- Closure of street, sidewalk, or lanes,
- Blocking existing vehicle, bicycle, or pedestrian access along a street or to parcels fronting the street,
- Modification of access to transit stations, stops, or facilities during service hours,
- Closure or movement of an existing bus stop or rerouting of an existing bus line.
- Creation of transportation hazards.

Compare the results to the evaluation criteria to determine the level of deficiency.

Section 4.2.5. - Recommended Action

Potential corrective conditions for project construction constraints can include but are not limited to:

- Implement traffic management plan, including traffic control plans,
    - Consult with Public Works if temporary closure of a travel lane may be necessary to stage equipment in the public right-of-way,
- Modify construction procedures,
- Limit major road obstructions to off-peak hours,
- Coordinate with emergency service and public transit providers,
- Provide alternative vehicular, bicycle, and/or pedestrian access to affected parcels. Consult with Public Works if temporary closure of a travel lane may be necessary to maintain adequate pedestrian and bicycle access as part of the traffic management plan,
- Coordinate access with adjacent property owners and tenants,
- Coordinate with transit agency regarding maintenance of ADA access to transit stations, stops, and transit facilities (e.g., layover zones),
- Coordinate with transit providers regarding need to temporarily close or relocate bus stops or reroute service.

Section 4.3. – Local Residential Street Cut-Through Analysis

Section 4.3.1. - Introduction

Development and transportation projects may be required to conduct a Local Residential Street Cut-Through Analysis (LRSTM). The objective of this analysis is to determine

potential increases in average daily traffic (ADT) volumes on designated Local Streets near a project that can be classified as cut-through trips generated by the project, and that can adversely affect the character and function of those streets. Cut- through trips are defined as trips along a street classified as a Local Street in the County's General Plan, with residential land-use frontage, as an alternative to trips along a highway defined as Limited Secondary, Secondary, Major, Parkway, or Expressway as designated in the County's General Plan for purposes of accessing a destination that is not within the neighborhood within which the Local Street is located.

Cut-through traffic may result from development projects that add vehicle trips to congested arterial street segments, or by transportation projects that reduce vehicular capacity on highway street segments. To mitigate potential adverse impacts from cut-through traffic (e.g., congestion, access issues, and speeding on Local Streets), traffic calming and diverting features should be considered and, if deemed appropriate by Public Works, implemented to offset any anticipated cut-through traffic.

Section 4.3.2. - Screening Criteria

Section 4.3.2.1. - Development Projects

If the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect residential streets:

- Is the project required to submit a Transportation Impact Analysis?
- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning?

In addition, for development projects to which all of the following circumstances apply, select local residential street segments for analyses during the transportation assessment scoping process:

- The project is located along a current Limited Secondary, Secondary, Major, Parkway, Expressway per the County's General Plan and the study intersections under project build-out conditions (as determined in Section 4.1) operate at a peak hour LOS E or LOS F.

- The project has a potential, based on connectivity to the roadway network, to add automobile traffic to the alternative local residential street route(s) during peak hours,

- An alternative local residential street route (defined as local streets as designated in the County's General Plan passing through a residential neighborhood) provide motorists with a viable alternative route. A viable alternative local residential street route is defined as one which is parallel and reasonably adjacent to the primary route as to make it attractive as an alternative to the primary route. The project applicant in consultation with Public Works shall define which routes are viable

alternative routes, based on, but not limited to, features such as geography and presence of existing traffic control devices, and other criteria as determined by Public Works.

For the purpose of screening for daily vehicle trips, a proposed project's daily vehicle trips should be estimated using the most recent edition of the ITE Trip Generation Manual. If the project proposed land use is not listed in the ITE Trip Generation Manual, please submit a trip generation study to Public Works for review and approval.

Section 4.3.3. - Methodology

Section 4.3.3.1. - Development Projects

Future peak hour "without project" traffic conditions for the study intersections in the vicinity of the project identified in Section 4.1 should be developed using the intersection analysis methodologies, including an ambient growth rate to the study horizon year and adding traffic generated by related projects. Future "without project" daily traffic volumes for the local residential streets included in the analysis should be developed by collecting daily traffic counts for the subject streets, adding an ambient growth rate to the study horizon year, and adding traffic generated by related projects, also using methodologies described in Section 4.1.

The methodologies described in Section 4.1 should be applied to estimate the daily and peak hour trip generation of the project and distribute the project trips to the street system to forecast the amount of project traffic that may be added to nearby congested highways. If the nearby study intersections are projected to operate at LOS E or F, the analysis shall include the following:

- Estimate the amount of peak hour project traffic that may instead shift away from the congested facilities to local residential streets,
- Estimate the amount of daily project traffic that may shift to local residential streets, considering that the street system is less congested during non-peak hours than during peak hours,

Section 4.3.4. - Recommended Action

If the analysis indicated the project may result in substantial diversion, the project applicant shall conduct public outreach and develop a Local Residential Street Cut-Through (LRSTM) Plan. The project applicant shall consult with Public Works, and neighborhood stakeholders, and any other stakeholders to collaboratively prepare the LRSTM Plan. Coordination with the appropriate Supervisorial District office may be necessary to designate the stakeholders that should facilitate the public outreach.

The project applicant shall submit a separate scoping document for the LRSTM Plan to Public Works for review and approval as part of the Transportation Impact Analysis which shall include the following items:

- Identify key milestones,
- Summarize the proposed process in developing a LRSTM plan for the local residential street segments of concern,
- Define a public outreach and consensus- building process,
- Propose selection and approval criteria for any evaluated traffic calming measures,
- Provide a funding plan which will include potential sources of funding.

The project applicant shall submit the LRSTM Plan with a cost estimate for the improvements, and a funding plan to Public Works for review and approval, prior to issuance of building permit. The LRSTM Plan shall be prepared in conformance with the guidelines established by Public Works and should contain, at a minimum, the following elements:

- Description of existing facilities and neighborhood traffic conditions,
- Description of proposed neighborhood traffic controls, including sketches of specific street modifications,
- Analysis of any change in existing or future traffic patterns as a result of implementation of the plan,
- Implementation and monitoring program.

The project applicant shall lead public outreach in consultation with Public Works and the affected Supervisorial District office.

The development of the LRSTM plan shall include the analysis of any relevant traffic data, roadway characteristics, and conditions of the local residential street segments of concern.

The LRSTM Plan should prioritize implementing effective traffic calming subject to Public Works guidelines and appropriate warrants, which may include, but is not limited to:

- Traffic circles,
- Speed humps,
- Roadway narrowing effects (raised medians, traffic chokers, etc.),
- Landscaping features,
- Roadway striping changes,
- Traffic control devices,
- Restrictive measures such as turn restrictions, physical barriers, diverters, signal metering, etc.,
    - Restrictive measures should be carefully evaluated to ensure that they do not lead to the diversion of a significant amount of traffic from one local residential street to another local residential street.

For these above-mentioned items, the project applicant shall also be responsible for conducting the engineering evaluation of the potential measures to determine the feasibility regarding drainage, constructability, street design and other pertinent elements.

Section 4.4 - Additional Site Access Analysis

Section 4.4.1 - Introduction

Project access and circulation constraints related to the site plan, and access to and from the project site may be analyzed separately from the Transportation Impact Analysis.

Section 4.4.2. - Screening Criteria

If the answer is yes to any of the following question, additional site access studies may be required to assess the projects site access requirements:

- Would the project provide a driveway on a rural cross section two-lane highway per the County's General Plan?
- Does the project's land use require vehicles to queue on-site?
- Does the project's land use include intermittent events which may exceed the supply of on-site parking?

Section 4.4.3. - Evaluation and Methodology

The project applicant shall prepare and submit a Scoping Document to Public Works through the EPIC-LA portal. The Scoping Document describes the assumptions and parameters that shall be included in the Additional Site Access Studies including any analysis requirements. The additional site access studies required based on the screening criteria from Section 4.4.2. are listed below

- Public Works may evaluate the site access requirements for a driveway on a rural two-lane highway by requesting a Traffic Access Management Study to be conducted,

- Public Works may evaluate the site access requirements for vehicular queuing by requesting a Traffic Queueing Analysis to be conducted,

- Public Works may evaluate the site access requirements for land use with intermittent events that will exceed the supply of on-site parking by requesting a Traffic Event Management Study to be conducted.

Section 4.4.4. - Recommended Actions

Potential corrective actions for project access and circulation will be addressed in the additional site access studies and documented in a Traffic Study Confirmation of Findings Letter from Public Works.

Section 5. - Study Format and Required Content

Each Transportation Impact Analysis should follow a consistent format and organization and include all of the figures, maps, and information presented in this section. The level of detail required for each project's Transportation Impact Analysis should be determined during the scoping process and identified in the Scoping Document.

Section 5.1. - Project Description

A Transportation Impact Analysis shall include a detailed project description at the beginning of the document. The project description should include the following information:

- Project case number, as assigned by the Department of Regional Planning (if applicable Tract Map, Parcel Map, Conditional Use Permit, RPPL),
- Location of the project site, address, Assessor's Block and Lot number(s), cross streets, and Supervisorial District, and Unincorporated Community,
- Existing and proposed total square footage for each type of land use and/or the number of residential units, including the net changes for each type of use,
- Transportation demand management measures proposed as part of the project.

This section shall also include the following maps and figures:

- Project site plan showing driveway locations, loading/unloading area,
- Site map showing study intersections and distance of the project driveway(s) from the adjacent intersections. Include location and identification of all major buildings, driveways, parking areas, and loading docks of the project.

Section 5.2. - Site Conditions

The information on the location and surroundings of the project shall be discussed following the project description, as a different section of the Transportation Impact Analysis. This section will provide a brief, but comprehensive description of the existing transportation infrastructure and conditions in the vicinity of the project. The specific boundaries of the Transportation Impact Analysis area, for both the location and surroundings of the project, should be confirmed during the initial discussion and scoping process with Public Works.

The project context section should include the following information, with the level of detail to be directed by Public Works during the scoping process:

- Street designations, classifications, pedestrian and bicycle facilities existing and planned,

- Description of the study area streets, including the number and width of lanes, direction of flow, on-street parking information, and other significant street information,
- Location of, distance from, and routings to and from on-ramps and off-ramps of regional highways and freeways,
- Description of public transit routes operating on the streets within the Transportation Impact Analysis area, including hours of service, peak period headways, type of vehicle (bus, light rail vehicle, etc.), and service provider.

This section of a Transportation Impact Analysis will also include the following maps and figures:

- Area map showing location of the project and related projects,
- Street maps of the study area indicating street names, classifications, and traffic control,
- Map or diagram of potential pedestrian destinations within 1,320 feet of the edge of a project site,
- Table indicating location, size, name, description, and trip generation of each related project.

Section 5.3. - Analysis, Discussion, and Results

Following the descriptions of the project and its surroundings, the Transportation Impact Analysis shall contain sections that detail the analyses conducted, summarize the results, and identify any significant transportation impacts and mitigation measures for each of the CEQA issue areas identified in Section 3, and any operational deficiencies and corrective actions for the additional areas of analysis identified in Section 4.

The Transportation Impact Analysis should include calculations, data, and descriptions of any transportation analyses conducted to determine project impacts on the transportation system. The Transportation Impact Analysis should describe the results of all project scenarios and describe all project impacts that have been identified.

Section 5.4. – Mitigation Measures and Recommended Actions

Section 5.4.1. - Introduction

When a project is expected to result in significant transportation impacts, as defined in Section 3, or transportation deficiencies, as defined in Section 4, the project's consultant should meet with Public Works to discuss potential transportation mitigation options and corrective actions before submitting a Transportation Impact Analysis. A variety of transportation mitigation measures should be considered to mitigate a project's significant transportation impact to a level of insignificance.

All proposed mitigation measures shall be described in the Transportation Impact Analysis and to the satisfaction of Public Works.

Section 5.4.2. - Transportation Demand Management Measures

Mitigation measures shall minimize vehicle miles traveled through Transportation Demand Management (TDM) strategies. A preliminary draft performance based TDM Program shall be included in the Transportation Impact Analysis for any project seeking trip generation amendments supported by TDM, to the satisfaction of Public Works. The applicant may be allowed to reduce the total project trips and VMT by an amount determined to be commensurate with the measures proposed in the TDM Program.

Section 5.4.3. - Physical Infrastructure Improvements

Construction of physical infrastructure improvements shall encourage walking and biking and the use of transit. Conceptual Traffic Signal Plans and Conceptual Signing and Striping Plans should be prepared for any proposed physical infrastructure improvements and should be submitted to Public Works for review and approval as part of the Transportation Impact Analysis.

Section 5.4.4. - Mitigation Monitoring and Reporting Program in CEQA Documents

Each mitigation measure in the project's mitigation monitoring program should be described separately in the CEQA Document. The following details are required for each measure:

- Identification of the agency responsible for monitoring the measure and coordinating all participants,
- Qualifications, if any, of the necessary monitor(s),
- Monitoring schedule (i.e., the phase of the project, frequency, and completion/termination) – this should be stated for physical mitigation measures required during construction as well as those that are for the operation/life of the project (e.g., TDM program),
- Funding required and sources of funding for monitoring activities by both project and County personnel (especially for long-term monitoring activities).

Attachment D

Approved Scope of Work

MAT Engineering, Inc.
www.matengineering.com
17192 Murphy Avenue #14902
Irvine, CA 92623
Ph: 949.344.1828

November 15, 2022

Ms. Starla Barker
DE NOVO PLANNING GROUP
180 East Main Street #108
Tustin, CA 92780

Subject: **Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening Scope of Work, City of South Gate, California**

Dear Starla,

MAT Engineering, Inc. is pleased to submit this proposed scoping agreement for preparation of a trip generation study and VMT screening for the proposed Long Beach Boulevard multifamily residential project in the City of South Gate.

A. Project Description & Location

The project site is located on the southwest corner of the Long Beach Boulevard / Willow Place intersection in the City of South Gate.

Existing uses on the project site consist of an auto repair/tire shop with an area of approximately 650 square feet.

The proposed project consists of removal of the existing auto repair/tire shop with development of 14 dwelling units of three-story multi-family residential use.

Access for the proposed project is planned via two driveways; one driveway on Willow place and one right-in/right-out driveway on Long Beach Boulevard.

Exhibit A shows the project location. Exhibit B shows the proposed site plan.

B. Project Trip Generation

Trip generation represents the amount of trips attracted and produced by a land use.

The trip generation for the existing use and the proposed project is based upon the specific land uses that have been planned for this project and has been determined utilizing the Institute of Transportation Engineers (ITE) trip generation rates which is an industry standard for calculating trips associated with land uses.

Table 1 shows the trip ITE trip generation rates for the existing and also the proposed uses based on the ITE.

Table 1
ITE Trip Generation Rates - subject to verification.

Land Use	ITE Code	Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Auto Repair/Care	942	TSF	1.49	0.76	2.25	1.49	1.62	3.11	31.1 *
Multi-family Residential (Low-Rise)	220	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74

Notes:
Source: 2021 ITE 11th Edition Trip Generation Manual; - provide cut sheets for ITE codes 942 and 220 in the report.
TSF = Thousand Square Feet; DU = Dwelling Units
* For auto repair use, since ITE does not have daily rates, the daily rate is derived by multiplying the PM peak hour rate by a factor of 10.0

Utilizing the ITE trip generation rates from Table 1, Table 2 shows a summary of the net trip generation for the proposed project after accounting for the existing land use which will be removed.

Table 2
Project Trip Generation - subject to verification

Land Use	Quantity	Units	ITE Code	Peak Hour						Daily
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Proposed Use (14 Dwelling Units of Low-Rise Multifamily Residential Units)	14	DU	220	1	5	6	4	3	7	94
Existing Use (650 Square Feet of Auto Repair Use)	0.650	TSF	942	-1	0	-1	-1	-1	-2	-20
NET Total				**0**	**5**	**5**	**3**	**2**	**5**	**74**

Source::

Institute of Transportation Engineers (ITE) 2021 Trip Generation Manual (11th Edition) Source: 2021 ITE 11th Edition Trip Generation Manual;

As shown in Table 2, based on the ITE trip generation rates:

- Without taking any credit for the existing use, the proposed project is forecast to generate approximately 94 daily trips which include approximately 6 AM peak hour trips and approximately 7 PM peak hour trips.

- The existing use generates approximately 20 daily trips which include approximately 1 AM peak hour trips and approximately 2 PM peak hour trips.

- After taking credit for the existing use, the proposed project is forecast to generate approximately 74 NET additional daily trips which include approximately 5 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

C. Trip Generation Evaluation & Access Analysis

As shown in Table 2, after taking credit for the existing use, the proposed project is forecast to generate approximately 74 NET additional daily trips which include approximately 5 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

Based on industry standards and the Los Angeles County traffic study requirements, typically, a full traffic study is required when a project generates more than 50 peak hour trips or 110 daily trips. Since the proposed project is expected to generate a low number of trips, MAT Engineering, Inc. proposes preparation of a trip generation memorandum for the project instead of a full traffic study.

The trip generation memorandum will disclose the project's trip generation based on the ITE trip generation rates and draw a conclusion that based on the low number of trips, the proposed project is expected to not result in an adverse level of service impact and operations on the surrounding roadway system.

D. Proposed Scope of Vehicle Miles Traveled (VMT) Analysis

In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Effective July 1, 2020, the previous CEQA metric of LOS, typically measured in terms of automobile delay, roadway capacity and congestion, generally will no longer constitute a significant environmental impact.

Based on County of Los Angeles traffic study requirements, projects generating less than 110 daily trips could be screened out from requiring a full VMT analysis. - Attach copy in the report

Hence, the proposed project is expected to screen out for requiring a full VMT analysis.

MAT Engineering, Inc., will prepare a VMT screening memo for the proposed project based on this screening criteria.

MAT Engineering Inc. appreciates the opportunity to provide this scope of work for review. If you have any questions, concerns, or comments, please contact us at 949-344-1828 or at@matengineering.com.

Respectfully submitted,

MAT ENGINEERING, INC.

Alex Tabrizi, PE, TE

President

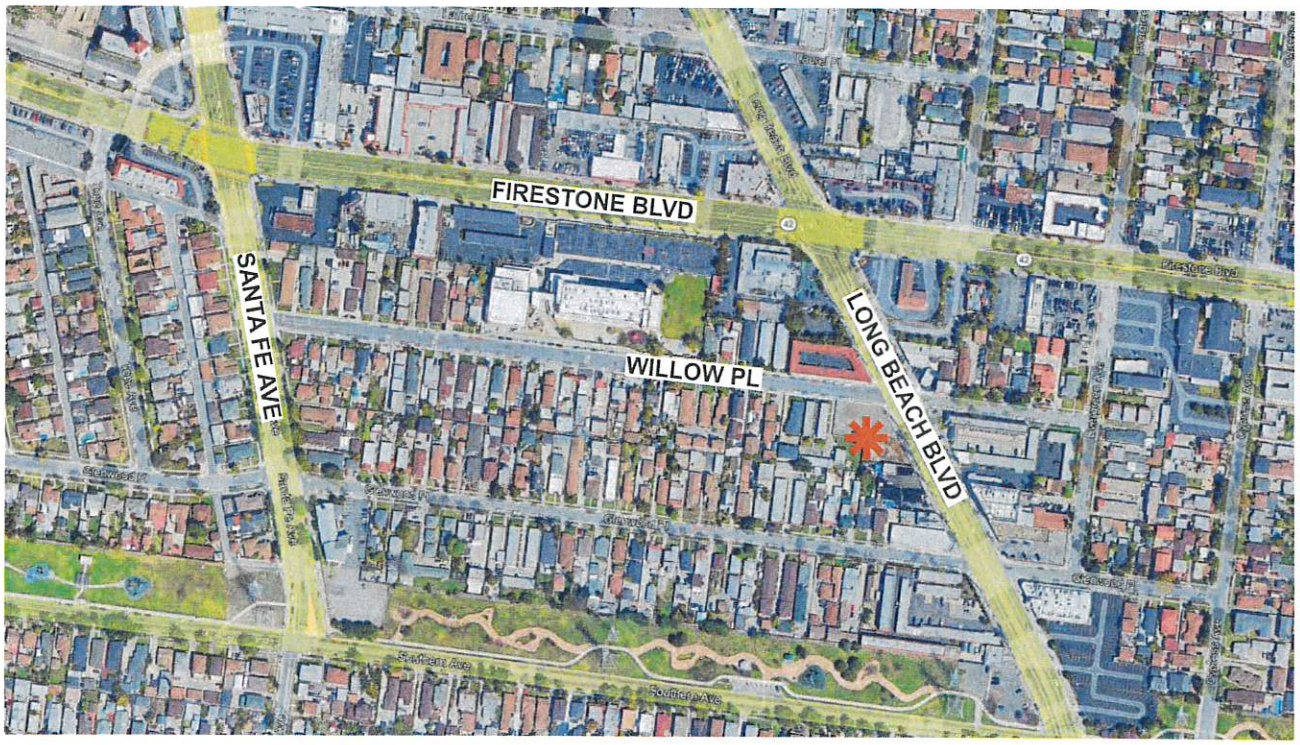
Approved by:

11-15-2022

Date

Attachment A

Exhibits



Legend:

Site Location

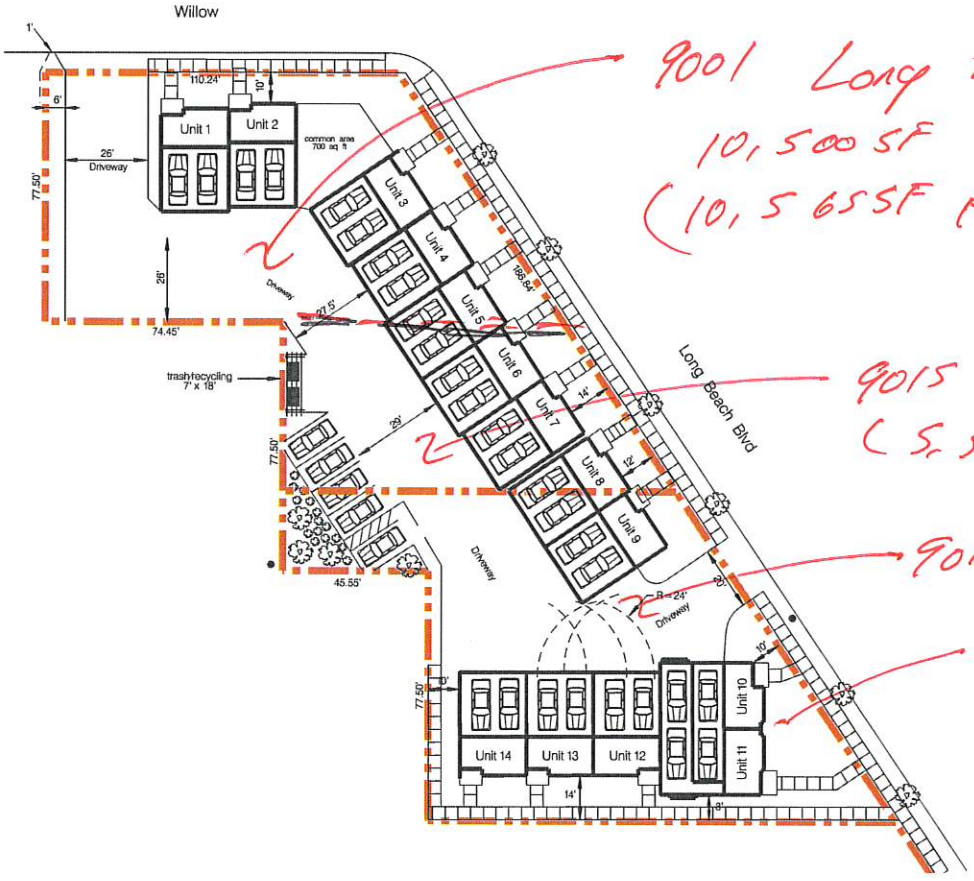
Not to Scale

ENGINEERING, INC.

Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Screening, City of South Gate, California / 0006-2022-13 NOV/2022

Project Location

Exhibit A



Not to Scale

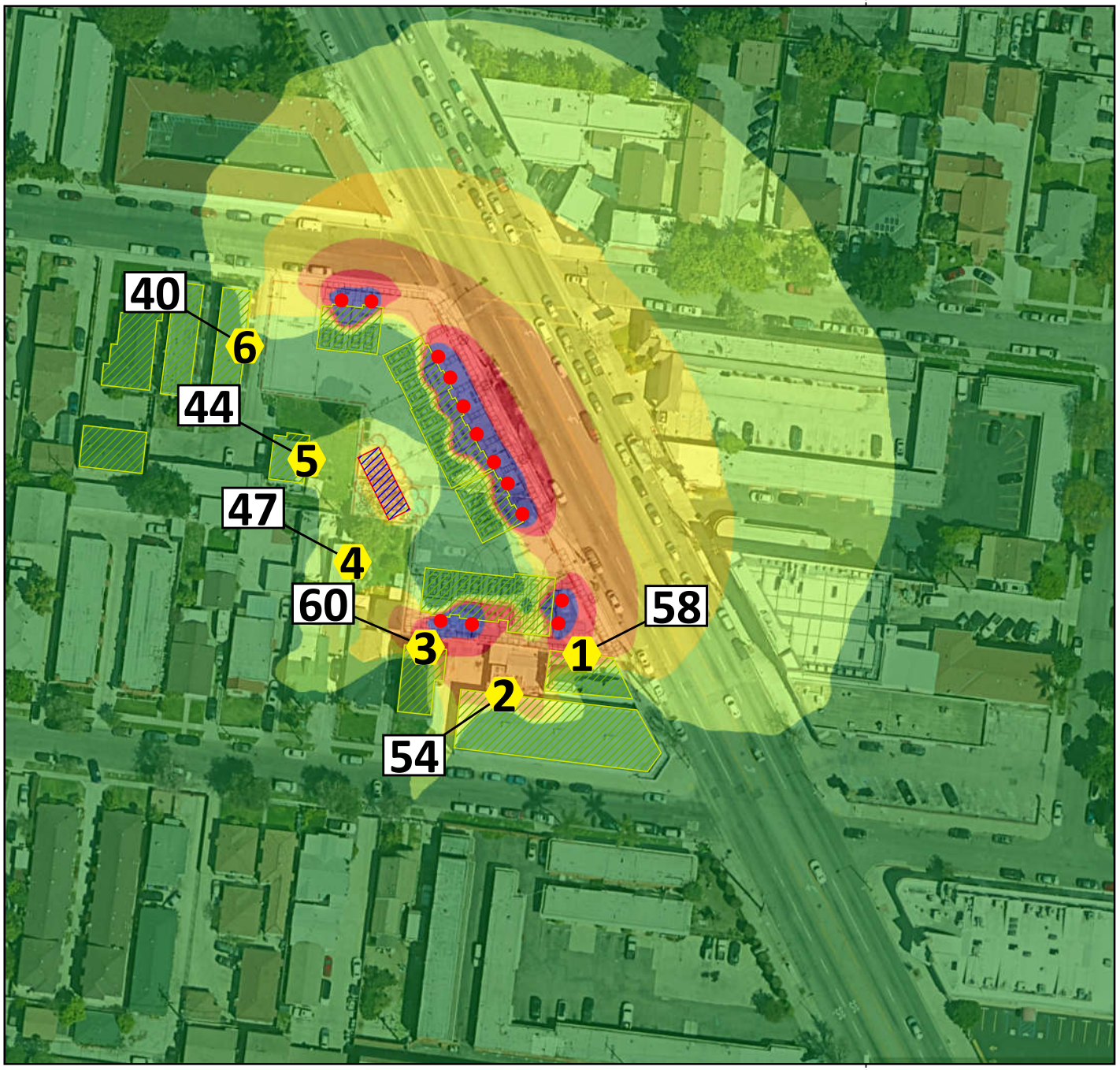
ENGINEERING, INC.

Provide a scale plan 1" = 20' or 40'
size of site plan shall be 24 x 36.

Site Plan

Exhibit B

Appendix C:
SoundPlan Input/Output



04622234_Habitat for Humanity IS-EA South Gate
Noise Level Contours

Levels in dB(A)

<	45
45 -	50
50 -	55
55 -	60
60 -	65
>=	65

Signs and symbols

- Level table, dBA
- Buildings
- Point Source (HVAC)
- Point Receivers

Length scale 1:70

0 45 90 180 27

MD ACOUSTICS
Sound Solutions for Planning and Design

Habitat for Humanity IS-EA South Gate
Contribution spectra - 001 - Habitat for Humanity: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Receiver R1 Fl G Lr,lim dB(A) Leq,d 58.0 dB(A)																													
HVAC	Leq,d	42.1	-8.8	-2.7	1.3	14.3	19.2	13.2	22.1	24.0	23.0	21.6	21.7	23.6	25.8	26.8	30.7	34.0	30.0	32.0	33.3	31.2	32.1	28.8	29.5	27.0	26.1	19.9	13.1
HVAC	Leq,d	32.6	-11.8	-6.0	-2.3	10.5	15.2	8.9	17.4	19.1	17.7	16.4	16.0	17.4	18.9	19.4	22.7	25.4	20.7	21.9	22.5	19.7	19.8	15.7	15.6	12.3	10.5	3.4	-4.3
HVAC	Leq,d	30.6	-13.4	-7.6	-3.9	8.9	13.6	7.3	15.7	17.4	16.0	14.4	13.9	15.3	16.8	17.2	20.5	23.4	18.7	20.0	20.6	17.7	17.7	13.6	13.4	9.9	8.0	0.6	-7.5
HVAC	Leq,d	52.7	-0.6	5.4	9.4	24.4	29.3	23.3	32.4	34.3	33.3	33.6	33.7	35.6	37.2	38.2	42.2	44.4	40.3	42.3	43.5	41.4	42.4	39.3	40.1	37.9	37.6	32.0	26.3
HVAC	Leq,d	55.9	2.8	10.5	14.5	27.5	32.4	26.4	35.5	37.5	36.4	37.2	37.3	39.3	40.7	41.7	45.7	47.5	43.5	45.5	46.6	44.5	45.5	42.4	43.4	41.2	41.0	35.6	30.1
HVAC	Leq,d	44.4	-6.7	-0.6	3.4	16.4	21.3	15.3	24.2	26.2	25.2	24.3	24.4	26.3	28.3	29.3	33.3	36.2	32.2	34.2	35.4	33.3	34.2	31.0	31.8	29.4	28.7	22.7	16.3
HVAC	Leq,d	28.1	-15.2	-9.5	-5.8	6.9	11.5	5.1	13.5	15.1	13.6	11.2	10.8	12.2	14.1	14.5	17.8	21.1	16.3	17.6	18.2	15.3	15.3	11.1	10.8	7.2	5.2	-2.4	-10.8
HVAC	Leq,d	23.6	-18.4	-12.7	-9.0	3.6	8.1	1.7	9.7	11.2	9.7	6.7	6.1	7.4	9.3	9.6	12.9	16.6	11.8	12.9	13.5	10.5	10.4	6.0	5.5	1.4	-1.3	-9.8	-19.7
HVAC	Leq,d	11.8	-23.9	-18.9	-16.0	-4.2	-0.4	-7.5	-0.2	0.7	-1.4	-4.2	-5.2	-4.2	-3.2	-2.9	0.6	3.5	-1.1	0.3	1.3	-1.4	-1.1	-5.1	-5.3	-9.0	-11.5	-20.2	-30.4
HVAC	Leq,d	9.9	-25.6	-20.8	-18.2	-6.5	-2.8	-10.0	-2.8	-1.9	-4.0	-5.7	-6.7	-5.8	-5.2	-4.7	-1.1	1.4	-3.1	-1.5	-0.3	-2.8	-2.4	-6.3	-6.4	-10.0	-12.6	-21.3	-31.6
HVAC	Leq,d	26.3	-16.2	-10.4	-6.8	5.8	10.4	4.0	12.2	13.7	12.2	9.5	9.0	10.4	12.2	12.5	15.8	19.2	14.4	15.5	16.1	13.2	13.1	8.9	8.5	4.8	2.6	-5.2	-14.0
HVAC	Leq,d	25.3	-17.0	-11.2	-7.6	5.0	9.6	3.2	11.3	12.8	11.3	8.5	7.9	9.3	11.1	11.5	14.8	18.3	13.5	14.6	15.2	12.2	12.2	7.9	7.5	3.7	1.3	-6.8	-16.0
HVAC	Leq,d	24.5	-17.8	-12.1	-8.4	4.2	8.8	2.4	10.5	12.0	10.5	7.5	7.0	8.3	10.2	10.6	13.9	17.5	12.7	13.9	14.5	11.5	11.4	7.1	6.6	2.6	0.1	-8.3	-17.9
Parking	Leq,d	15.4					7.6			13.7			0.3			2.1			1.0			-0.5			-5.7			-17.4	
Remaining contrib. of src "HVAC"	Leq,d																												
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Habitat for Humanity IS-EA South Gate
Contribution spectra - 001 - Habitat for Humanity: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "Parking"	Leq,d																												
Receiver R2 Fl G Lr,lim dB(A)	Leq,d 53.7 dB(A)																												
HVAC	Leq,d	48.9	-5.3	0.8	4.8	17.8	22.7	16.7	28.0	29.9	29.5	28.8	28.9	31.0	32.9	34.0	37.9	40.9	36.8	38.8	40.0	38.0	38.9	35.7	36.4	34.0	33.3	27.4	21.0
HVAC	Leq,d	18.8	-17.4	-12.2	-9.2	2.8	6.6	-0.6	6.8	7.4	4.9	3.3	2.0	3.4	3.6	3.8	7.4	9.5	5.1	6.8	7.9	5.6	6.8	3.3	3.8	0.9	-0.3	-7.1	-14.6
HVAC	Leq,d	17.0	-18.6	-13.4	-10.4	1.5	5.3	-2.0	5.4	5.9	3.5	1.9	0.7	1.5	1.8	1.7	5.3	7.4	3.0	4.7	5.9	3.5	4.9	1.4	1.8	-1.1	-2.5	-9.5	-17.2
HVAC	Leq,d	37.2	-9.8	-4.1	-0.4	12.2	16.8	10.4	18.9	20.4	18.8	17.9	19.0	20.5	22.1	22.7	26.3	29.6	25.3	27.0	28.2	25.9	26.6	23.1	23.5	20.6	19.3	12.3	4.6
HVAC	Leq,d	42.9	-7.8	-1.9	1.9	14.7	19.5	13.4	22.2	24.1	22.9	23.4	23.4	25.3	27.1	28.1	32.0	34.8	30.8	32.7	33.9	31.8	32.7	29.4	30.1	27.6	26.9	20.8	14.3
HVAC	Leq,d	51.2	-1.1	4.9	8.9	21.9	26.9	20.9	29.9	32.8	31.7	31.5	31.6	33.6	35.4	36.4	40.4	43.1	39.0	41.0	42.2	40.2	41.1	37.9	38.7	36.4	35.8	30.0	23.8
HVAC	Leq,d	16.1	-19.2	-14.1	-11.1	0.8	4.5	-2.8	4.5	5.1	2.7	1.1	-0.1	0.7	1.0	0.9	4.4	6.6	2.2	3.9	5.0	2.7	4.0	0.5	0.8	-2.1	-3.6	-10.8	-18.9
HVAC	Leq,d	12.8	-23.3	-18.3	-15.4	-3.6	0.1	-7.1	0.2	0.9	-1.4	-2.6	-3.7	-2.8	-2.5	-1.5	1.5	3.5	-0.8	1.6	2.9	0.5	1.1	-2.6	-2.6	-6.0	-8.2	-16.5	-26.0
HVAC	Leq,d	9.9	-26.5	-21.8	-19.1	-7.5	-3.8	-11.0	-3.8	-3.0	-5.1	-5.9	-6.9	-6.0	-5.6	-5.2	-1.4	1.5	-2.8	-1.0	0.3	-2.1	-1.6	-5.4	-5.4	-9.1	-11.6	-20.3	-30.7
HVAC	Leq,d	11.2	-26.3	-21.5	-18.8	-7.2	-3.5	-10.8	-3.5	-2.7	-4.8	-5.9	-6.9	-4.1	-3.8	-3.4	1.0	3.0	-1.3	0.5	1.8	-0.6	-0.1	-3.9	-4.0	-7.7	-10.4	-19.2	-29.8
HVAC	Leq,d	14.6	-21.1	-15.9	-13.0	-1.1	2.6	-4.6	2.7	3.3	0.9	-0.3	-1.4	-0.6	-0.4	-0.4	2.9	5.0	0.7	2.4	3.6	1.3	2.8	-0.7	-0.4	-3.5	-5.2	-12.6	-21.0
HVAC	Leq,d	14.0	-21.7	-16.5	-13.6	-1.7	2.0	-5.2	2.1	2.7	0.4	-0.6	-1.7	-0.8	-0.6	-0.7	2.3	4.0	-0.3	1.4	3.4	1.1	1.7	-1.9	0.0	-3.2	-5.0	-12.7	-21.6
HVAC	Leq,d	13.4	-23.1	-18.0	-15.1	-3.3	0.4	-6.8	0.4	1.1	-1.2	-2.5	-3.6	-2.8	-1.5	-1.6	2.0	4.3	0.0	1.7	3.6	1.3	1.9	-1.8	-1.7	-5.2	-7.3	-15.3	-24.7
Parking	Leq,d	17.7					9.3			16.0			4.1			5.5			4.4			2.2			-3.1			-14.7	
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												

Habitat for Humanity IS-EA South Gate
Contribution spectra - 001 - Habitat for Humanity: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "Parking"	Leq,d																												
Receiver R3 Fl G Lr,lim dB(A)	Leq,d 59.7 dB(A)																												
HVAC	Leq,d	58.3	4.8	10.8	16.5	29.5	34.5	28.5	37.6	39.6	38.5	39.8	39.8	41.8	43.2	44.2	48.1	49.9	45.9	47.9	49.0	46.9	47.9	44.8	45.8	43.7	43.4	38.1	32.6
HVAC	Leq,d	18.0	-18.2	-13.2	-10.3	1.5	5.2	-2.1	5.3	5.8	3.3	2.4	1.2	1.9	2.3	3.1	6.8	8.8	4.6	6.4	7.6	5.4	6.2	2.8	3.4	0.8	-0.2	-6.7	-13.8
HVAC	Leq,d	18.2	-18.5	-13.5	-10.6	1.1	4.8	-2.6	4.7	5.3	2.9	1.7	1.7	2.6	2.9	3.5	7.3	9.3	5.0	6.8	8.0	5.8	6.5	3.1	3.6	0.8	-0.3	-7.1	-14.5
HVAC	Leq,d	22.9	-14.5	-9.2	-6.0	6.2	10.2	3.3	11.1	11.9	9.8	8.4	7.2	8.0	9.2	9.0	12.0	14.0	9.3	10.8	11.6	9.1	9.6	6.1	6.4	3.7	2.6	-3.9	-10.9
HVAC	Leq,d	26.6	-12.6	-7.1	-3.7	8.7	13.0	6.3	14.4	15.5	13.6	12.0	11.1	12.0	12.9	13.0	16.0	18.2	13.4	14.6	15.1	12.5	12.8	8.9	9.1	6.1	4.8	-1.8	-8.9
HVAC	Leq,d	53.9	0.1	6.2	12.3	25.3	30.3	24.3	33.4	35.3	34.3	34.7	34.8	36.8	38.3	39.3	43.3	45.6	41.6	43.6	44.7	42.7	43.6	40.5	41.4	39.2	38.9	33.4	27.6
HVAC	Leq,d	18.6	-20.4	-15.4	-12.5	-0.7	5.0	-2.4	4.9	5.5	3.1	2.8	2.6	3.5	3.5	3.9	7.6	9.5	5.4	7.3	8.6	6.5	7.3	3.9	4.4	1.6	0.4	-6.4	-14.0
HVAC	Leq,d	14.4	-23.2	-18.2	-15.4	-3.6	0.1	-7.1	0.2	0.8	-1.5	-2.7	-3.8	-2.9	-0.8	-0.6	3.1	5.3	1.1	3.8	5.2	2.9	3.6	0.0	0.1	-3.1	-5.1	-12.9	-21.8
HVAC	Leq,d	17.4	-20.7	-15.2	-11.8	0.5	4.8	-1.9	5.8	6.8	4.9	1.8	0.7	1.5	2.8	2.8	5.8	9.3	4.4	5.9	6.7	3.8	3.9	-0.2	-0.5	-4.3	-6.7	-15.1	-24.9
HVAC	Leq,d	14.5	-21.9	-16.6	-13.4	-1.3	2.8	-4.2	3.2	4.0	1.8	-0.6	-1.9	-1.3	-0.7	-0.3	2.9	5.5	0.9	2.4	3.4	0.8	1.2	-2.7	-2.8	-6.4	-8.7	-17.1	-26.8
HVAC	Leq,d	16.0	-21.4	-16.4	-13.6	-1.8	1.8	-5.5	1.8	2.4	0.0	-0.7	-0.3	0.6	0.7	1.4	5.2	7.0	2.9	4.8	6.3	4.1	4.8	1.4	1.8	-1.1	-2.5	-9.5	-17.4
HVAC	Leq,d	15.0	-22.4	-17.4	-14.6	-2.9	0.8	-6.6	0.7	1.4	-1.0	-1.7	-1.3	-0.4	-0.2	0.5	4.3	6.2	2.0	3.9	5.2	3.0	3.7	0.3	0.6	-2.3	-3.8	-11.0	-19.2
HVAC	Leq,d	13.7	-23.1	-18.1	-15.3	-3.6	0.1	-7.2	0.1	0.8	-1.5	-2.5	-3.6	-2.8	-2.4	-1.6	2.2	4.0	-0.2	3.0	4.3	2.1	2.8	-0.7	-0.4	-3.5	-5.2	-12.6	-21.2
Parking	Leq,d	32.5					18.4			27.8			16.5			22.1			24.8			26.0			22.5			13.2	
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "Parking"	Leq,d																												
Receiver R4 Fl G Lr,lim dB(A) Leq,d 47.5 dB(A)																													
HVAC	Leq,d	44.3	-9.5	-3.7	0.1	12.9	17.7	11.5	20.2	25.6	26.0	24.8	24.7	26.6	28.6	29.5	33.4	36.5	32.4	34.3	35.5	33.3	34.1	30.8	31.4	28.8	27.9	21.7	14.9
HVAC	Leq,d	21.0	-15.2	-9.8	-6.5	5.7	9.8	2.8	10.5	11.3	8.9	6.7	5.3	5.8	6.2	6.0	9.2	11.4	6.8	8.2	9.1	6.5	7.0	3.4	3.8	1.0	-0.3	-7.0	-14.4
HVAC	Leq,d	20.5	-10.4	-10.3	-7.1	5.1	9.1	2.1	9.8	10.5	8.2	6.2	4.8	5.3	5.5	5.4	8.7	10.9	6.3	7.8	8.8	6.4	7.0	3.4	3.8	0.9	-0.3	-7.0	-14.3
HVAC	Leq,d	18.1	-12.1	-12.1	-9.0	3.0	6.9	-0.2	7.3	8.0	5.6	3.3	2.1	2.8	3.3	3.1	6.4	8.7	4.1	5.6	6.6	4.1	4.7	1.1	1.4	-1.5	-2.9	-9.8	-17.5
HVAC	Leq,d	18.1	-17.5	-12.3	-9.3	2.7	6.4	-0.8	6.5	7.1	4.7	2.7	1.5	2.2	2.8	2.7	6.1	9.2	4.6	6.5	7.5	4.9	5.4	1.8	2.0	-1.0	-2.5	-9.5	-17.4
HVAC	Leq,d	42.9	-12.0	-6.4	-2.8	9.7	14.2	7.6	15.8	17.1	23.9	22.1	22.0	24.2	26.6	27.5	31.4	35.1	31.0	33.0	34.3	32.1	33.0	29.7	30.2	27.6	26.5	19.9	12.8
HVAC	Leq,d	28.0	-14.1	-8.4	-4.7	7.9	12.5	6.1	14.5	15.9	14.4	12.3	11.7	12.9	14.4	14.6	17.7	20.5	15.7	16.8	17.4	14.4	14.5	10.3	10.2	6.8	5.0	-2.2	-10.0
HVAC	Leq,d	17.2	-19.4	-14.2	-11.0	1.0	5.0	-2.1	5.5	6.2	3.8	2.4	1.1	1.7	1.9	2.0	5.8	7.9	3.5	5.2	6.3	4.0	4.6	1.0	1.3	-1.7	-3.2	-10.3	-18.3
HVAC	Leq,d	19.0	-18.5	-13.0	-9.7	2.5	6.7	-0.1	7.6	8.6	6.5	3.9	2.7	3.6	4.6	4.6	7.7	10.7	5.8	7.1	7.8	5.0	5.2	1.2	1.1	-2.2	-4.1	-11.6	-20.2
HVAC	Leq,d	17.7	-19.2	-13.9	-10.7	1.5	5.5	-1.4	6.1	6.9	4.6	2.4	1.1	1.7	2.2	1.9	5.0	7.6	6.1	7.2	7.7	4.7	4.7	0.6	0.4	-3.0	-4.8	-12.3	-20.8
HVAC	Leq,d	19.7	-17.3	-12.0	-8.8	3.3	7.4	0.4	8.1	8.9	6.7	5.4	4.1	4.8	5.2	5.0	8.3	10.7	6.1	7.6	8.6	6.1	6.6	3.1	3.4	0.6	-0.6	-7.3	-14.6
HVAC	Leq,d	18.5	-18.4	-13.2	-10.0	2.0	6.0	-1.0	6.6	7.4	5.1	3.9	2.6	3.2	3.5	3.3	7.2	9.4	4.9	6.6	7.7	5.3	5.9	2.3	2.7	-0.2	-1.5	-8.3	-15.8
HVAC	Leq,d	17.5	-19.2	-14.0	-10.9	1.2	5.2	-1.9	5.7	6.4	4.0	2.7	1.4	2.0	2.3	2.1	6.3	8.4	4.0	5.7	6.8	4.4	5.1	1.5	1.8	-1.1	-2.5	-9.5	-17.2
Parking	Leq,d	39.3					24.5			34.1			24.7			30.0			31.9			32.5			29.2			21.3	
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												

Habitat for Humanity IS-EA South Gate
Contribution spectra - 001 - Habitat for Humanity: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "Parking"	Leq,d																												
Receiver R5 Fl G Lr,lim dB(A)	Leq,d 43.8 dB(A)																												
HVAC	Leq,d	39.0	-15.9	-10.3	-6.7	5.9	10.4	3.9	12.0	19.3	20.0	17.2	17.1	19.0	22.3	23.3	27.1	31.5	27.4	29.3	30.7	28.5	29.2	25.8	26.1	23.1	21.4	14.1	5.8
HVAC	Leq,d	19.6	-17.5	-12.2	-9.0	3.2	7.2	0.2	7.9	8.7	6.4	4.1	2.8	4.5	5.3	5.1	8.6	10.7	6.0	7.5	8.5	6.1	6.6	3.0	3.3	0.2	-1.4	-8.7	-16.8
HVAC	Leq,d	16.8	-19.4	-14.2	-11.1	1.0	4.9	-2.2	5.3	5.9	3.4	2.5	1.1	1.6	1.5	1.3	5.2	7.1	2.9	4.7	6.0	3.7	4.5	1.1	1.5	-1.3	-2.6	-9.4	-16.9
HVAC	Leq,d	18.3	-19.3	-13.9	-10.6	1.7	5.9	-0.9	6.8	7.8	5.7	3.2	2.1	2.9	3.9	3.8	6.7	9.8	5.0	6.2	7.2	4.4	4.6	0.6	0.4	-3.1	-5.2	-13.1	-22.1
HVAC	Leq,d	16.8	-20.4	-15.1	-12.0	0.1	4.0	-3.1	4.3	5.1	2.9	0.7	-0.5	2.7	3.1	3.0	6.2	8.2	3.5	4.8	6.2	3.7	4.1	0.3	0.3	-3.1	-5.3	-13.3	-22.5
HVAC	Leq,d	37.3	-18.1	-12.6	-9.3	2.9	7.0	0.2	7.9	8.8	16.7	15.9	15.8	17.8	20.4	21.4	25.3	29.8	25.7	27.6	29.1	26.9	27.6	24.2	24.5	21.5	20.0	12.6	4.2
HVAC	Leq,d	19.9	-16.5	-11.2	-7.9	4.3	8.3	1.3	8.9	9.7	7.3	5.3	3.9	4.4	4.9	4.6	8.3	10.4	5.8	7.4	8.4	6.0	6.6	3.0	3.3	0.3	-1.0	-7.9	-15.4
HVAC	Leq,d	19.4	-16.8	-11.6	-8.4	3.7	7.7	0.6	8.2	8.9	6.5	5.3	3.9	4.4	4.3	4.3	7.6	9.6	5.2	7.0	8.1	5.8	6.5	3.1	3.6	0.9	-0.1	-6.7	-13.8
HVAC	Leq,d	20.4	-15.3	-10.0	-6.8	5.3	9.3	2.3	9.9	10.6	8.2	6.3	4.9	5.4	5.6	5.3	8.5	10.6	6.1	7.6	8.5	6.1	6.7	3.2	3.6	0.9	-0.3	-6.8	-14.0
HVAC	Leq,d	21.1	-14.9	-9.6	-6.3	5.8	9.9	2.9	10.6	11.4	9.0	7.1	5.7	6.2	6.4	6.1	9.2	11.3	6.7	8.2	9.1	6.6	7.2	3.7	4.2	1.4	0.3	-6.2	-13.3
HVAC	Leq,d	18.9	-17.7	-12.4	-9.3	2.8	6.7	-0.3	7.3	7.9	5.5	4.5	3.1	3.6	3.9	3.6	7.3	9.2	5.0	6.8	8.0	5.7	6.5	3.1	3.6	0.8	-0.3	-7.0	-14.2
HVAC	Leq,d	19.0	-17.7	-12.4	-9.3	2.7	6.7	-0.4	7.2	7.9	5.5	4.6	3.2	3.7	3.9	3.8	7.4	9.3	5.1	6.9	8.2	5.9	6.7	3.3	3.8	1.1	0.0	-6.5	-13.7
HVAC	Leq,d	19.0	-17.5	-12.2	-9.1	3.0	7.0	-0.1	7.5	8.2	5.8	4.8	3.3	3.8	3.7	3.7	7.3	9.2	5.0	6.8	8.0	5.7	6.5	3.1	3.6	1.0	-0.1	-6.6	-13.7

Habitat for Humanity IS-EA South Gate
Contribution spectra - 001 - Habitat for Humanity: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Parking	Leq,d	39.8					24.9			34.5			25.3			30.6			32.4			33.0			29.8			21.9	
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "Parking"	Leq,d																												
Receiver R6 Fl G Lr,lim dB(A)	Leq,d 39.8 dB(A)																												
HVAC	Leq,d	23.5	-23.1	-18.1	-15.3	-3.6	0.0	-7.4	-0.2	6.6	4.7	7.1	6.1	6.9	6.6	7.8	10.6	11.3	6.1	7.1	8.8	16.6	17.0	13.2	12.9	9.0	6.0	-3.5	-14.9
HVAC	Leq,d	14.3	-22.2	-17.0	-13.9	-1.8	2.0	-5.1	2.1	2.7	0.3	-1.6	-2.9	-0.6	-0.5	-0.8	2.8	5.2	1.1	2.8	4.1	1.8	2.3	-1.4	-1.3	-4.7	-6.8	-14.9	-24.3
HVAC	Leq,d	14.1	-22.0	-16.8	-13.7	-1.6	2.3	-4.9	2.4	3.0	0.5	-0.9	-2.2	-1.6	-1.5	-1.7	2.7	4.6	0.3	2.1	3.4	1.1	2.1	-1.5	-1.4	-4.6	-6.6	-14.4	-23.3
HVAC	Leq,d	11.4	-23.5	-18.2	-15.2	-3.3	0.5	-6.8	0.2	0.8	-1.7	-3.1	-4.4	-3.6	-3.3	-3.4	-0.5	1.9	-2.6	-1.0	0.2	-2.3	-1.9	-5.7	-5.8	-9.4	-11.8	-20.3	-30.4
HVAC	Leq,d	13.3	-23.0	-17.6	-14.4	-2.3	1.8	-5.2	2.1	3.0	0.8	-1.6	-2.8	-2.1	-1.3	-1.4	1.5	4.6	-0.1	1.1	2.0	-0.8	-0.6	-4.7	-5.0	-8.8	-11.5	-20.2	-30.6
HVAC	Leq,d	18.2	-22.1	-16.7	-13.5	-1.3	2.8	-4.1	3.4	4.3	3.6	5.8	4.9	5.9	6.3	6.1	8.9	10.0	4.8	5.8	6.4	3.5	3.7	-0.2	-0.3	-3.8	-6.0	-14.3	-24.1
HVAC	Leq,d	18.0	-20.2	-14.9	-10.3	1.8	6.6	-0.5	6.9	7.5	5.0	4.0	2.6	3.3	3.3	3.4	6.4	8.1	3.8	5.6	6.8	4.5	5.2	1.6	1.9	-1.2	-2.9	-10.4	-19.0
HVAC	Leq,d	17.4	-18.4	-13.2	-10.2	1.7	5.5	-1.8	5.5	6.0	3.5	2.3	1.1	1.8	2.0	2.2	5.8	8.0	3.7	5.4	6.6	4.3	5.0	1.6	2.0	-0.8	-2.0	-8.7	-16.2

Habitat for Humanity IS-EA South Gate
Contribution spectra - 001 - Habitat for Humanity: Outdoor SP

Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
HVAC	Leq,d	27.7	-11.6	-6.0	-2.4	10.1	14.5	7.9	16.1	17.4	15.5	13.9	13.0	14.3	15.0	14.9	17.6	19.3	14.0	14.7	15.2	12.2	12.3	8.5	8.6	5.7	4.4	-2.2	-9.3
HVAC	Leq,d	38.3	-9.4	-3.7	0.1	12.8	17.6	11.3	20.0	21.7	20.3	19.5	20.2	21.9	23.6	24.3	27.9	30.9	26.5	28.2	29.2	26.7	27.3	23.7	24.0	21.0	19.6	12.7	4.9
HVAC	Leq,d	15.5	-20.2	-14.9	-11.8	0.3	4.2	-2.9	4.6	5.2	2.8	1.3	-0.1	0.4	0.5	0.3	3.6	5.7	1.3	3.0	4.2	1.9	2.5	-1.0	-0.6	-3.6	-5.1	-12.2	-20.3
HVAC	Leq,d	16.5	-19.4	-14.2	-11.0	1.1	5.1	-2.0	5.5	6.1	3.7	2.2	0.8	1.3	1.4	1.1	4.5	6.6	2.2	3.9	5.1	3.2	3.8	0.3	0.7	-2.3	-3.7	-10.8	-18.7
HVAC	Leq,d	18.3	-18.2	-12.9	-9.7	2.5	6.5	-0.4	7.2	8.1	5.9	4.0	2.7	3.4	3.9	3.7	7.0	9.1	4.3	5.7	6.5	4.3	4.9	1.3	1.6	-1.3	-2.6	-9.5	-17.2
Parking	Leq,d	32.0					17.1			26.4			15.2			21.7			25.1			26.2			22.3			12.2	
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "HVAC"	Leq,d																												
Remaining contrib. of src "Parking"	Leq,d																												

Source	Source group	Source ty	Tr. lane	Leq,d dB(A)	A dB	
Receiver R1 Fl G Lr,lim dB(A) Leq,d 58.0 dB(A)						
Parking	Default parking lot noise	PLot		15.4	0.0	
HVAC	Default industrial noise	Point		9.9	0.0	
HVAC	Default industrial noise	Point		11.8	0.0	
HVAC	Default industrial noise	Point		23.6	0.0	
HVAC	Default industrial noise	Point		24.5	0.0	
HVAC	Default industrial noise	Point		25.3	0.0	
HVAC	Default industrial noise	Point		26.3	0.0	
HVAC	Default industrial noise	Point		28.1	0.0	
HVAC	Default industrial noise	Point		30.6	0.0	
HVAC	Default industrial noise	Point		32.6	0.0	
HVAC	Default industrial noise	Point		42.1	0.0	
HVAC	Default industrial noise	Point		44.4	0.0	
HVAC	Default industrial noise	Point		55.9	0.0	
HVAC	Default industrial noise	Point		52.7	0.0	
Receiver R2 Fl G Lr,lim dB(A) Leq,d 53.7 dB(A)						
Parking	Default parking lot noise	PLot		17.7	0.0	
HVAC	Default industrial noise	Point		11.2	0.0	
HVAC	Default industrial noise	Point		9.9	0.0	
HVAC	Default industrial noise	Point		12.8	0.0	
HVAC	Default industrial noise	Point		13.4	0.0	
HVAC	Default industrial noise	Point		14.0	0.0	
HVAC	Default industrial noise	Point		14.6	0.0	
HVAC	Default industrial noise	Point		16.1	0.0	
HVAC	Default industrial noise	Point		17.0	0.0	
HVAC	Default industrial noise	Point		18.8	0.0	
HVAC	Default industrial noise	Point		48.9	0.0	
HVAC	Default industrial noise	Point		51.2	0.0	
HVAC	Default industrial noise	Point		42.9	0.0	
HVAC	Default industrial noise	Point		37.2	0.0	
Receiver R3 Fl G Lr,lim dB(A) Leq,d 59.7 dB(A)						
Parking	Default parking lot noise	PLot		32.5	0.0	
HVAC	Default industrial noise	Point		14.5	0.0	
HVAC	Default industrial noise	Point		17.4	0.0	
HVAC	Default industrial noise	Point		14.4	0.0	
HVAC	Default industrial noise	Point		13.7	0.0	
HVAC	Default industrial noise	Point		15.0	0.0	
HVAC	Default industrial noise	Point		16.0	0.0	
HVAC	Default industrial noise	Point		18.6	0.0	
HVAC	Default industrial noise	Point		18.2	0.0	
HVAC	Default industrial noise	Point		18.0	0.0	
HVAC	Default industrial noise	Point		58.3	0.0	
HVAC	Default industrial noise	Point		53.9	0.0	
HVAC	Default industrial noise	Point		26.6	0.0	

Source	Source group	Source ty	Tr. lane	Leq,d dB(A)	A dB	
HVAC	Default industrial noise	Point		22.9	0.0	
Receiver R4 Fl G Lr,lim dB(A) Leq,d 47.5 dB(A)						
Parking	Default parking lot noise	PLot		39.3	0.0	
HVAC	Default industrial noise	Point		17.7	0.0	
HVAC	Default industrial noise	Point		19.0	0.0	
HVAC	Default industrial noise	Point		17.2	0.0	
HVAC	Default industrial noise	Point		17.5	0.0	
HVAC	Default industrial noise	Point		18.5	0.0	
HVAC	Default industrial noise	Point		19.7	0.0	
HVAC	Default industrial noise	Point		28.0	0.0	
HVAC	Default industrial noise	Point		20.5	0.0	
HVAC	Default industrial noise	Point		21.0	0.0	
HVAC	Default industrial noise	Point		44.3	0.0	
HVAC	Default industrial noise	Point		42.9	0.0	
HVAC	Default industrial noise	Point		18.1	0.0	
HVAC	Default industrial noise	Point		18.1	0.0	
Receiver R5 Fl G Lr,lim dB(A) Leq,d 43.8 dB(A)						
Parking	Default parking lot noise	PLot		39.8	0.0	
HVAC	Default industrial noise	Point		21.1	0.0	
HVAC	Default industrial noise	Point		20.4	0.0	
HVAC	Default industrial noise	Point		19.4	0.0	
HVAC	Default industrial noise	Point		19.0	0.0	
HVAC	Default industrial noise	Point		19.0	0.0	
HVAC	Default industrial noise	Point		18.9	0.0	
HVAC	Default industrial noise	Point		19.9	0.0	
HVAC	Default industrial noise	Point		16.8	0.0	
HVAC	Default industrial noise	Point		19.6	0.0	
HVAC	Default industrial noise	Point		39.0	0.0	
HVAC	Default industrial noise	Point		37.3	0.0	
HVAC	Default industrial noise	Point		16.8	0.0	
HVAC	Default industrial noise	Point		18.3	0.0	
Receiver R6 Fl G Lr,lim dB(A) Leq,d 39.8 dB(A)						
Parking	Default parking lot noise	PLot		32.0	0.0	
HVAC	Default industrial noise	Point		38.3	0.0	
HVAC	Default industrial noise	Point		27.7	0.0	
HVAC	Default industrial noise	Point		17.4	0.0	
HVAC	Default industrial noise	Point		18.3	0.0	
HVAC	Default industrial noise	Point		16.5	0.0	
HVAC	Default industrial noise	Point		15.5	0.0	
HVAC	Default industrial noise	Point		18.0	0.0	
HVAC	Default industrial noise	Point		14.1	0.0	
HVAC	Default industrial noise	Point		14.3	0.0	
HVAC	Default industrial noise	Point		23.5	0.0	
HVAC	Default industrial noise	Point		18.2	0.0	

Source	Source group	Source ty	Tr. lane	Leq,d dB(A)	A dB	
HVAC	Default industrial noise	Point		13.3	0.0	
HVAC	Default industrial noise	Point		11.4	0.0	

Habitat for Humanity IS-EA South Gate
Octave spectra of the sources in dB(A) - 001 - Habitat for Humanity: Outdoor SP

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	DO-Wall	Time histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
HVAC	Point				82.7	82.7	0.0	0.0		0	100%/24h	HVAC: 67.7dB @ 3ft - Carrier 50TFQ0006 -	58.9	67.8	70.5	75.3	77.0	76.8	73.8	69.5	57.7
Parking	PLot	73.66			55.3	74.0	0.0	0.0		0	100%/24h	Typical spectrum	57.3	68.9	61.4	65.9	66.0	66.4	63.7	57.5	44.7

Appendix D:
Reference Data

Project:	Sound Library	**Site Observations:**	
Job Number:	0000-2020-02	Measured @ 10'	
Site Address/Location:	Residential		
Date:	07/02/2020		
Field Tech/Engineer:	Robert Pearson		
Source/System:	Day & Night N4A5		
General Location:	Measured @ 10'		
Sound Meter:	NTi XL2	**SN:** NA	
Settings:	A-weighted, fast, 1-sec, 60-sec duration		
Meteorological Cond.:	Clear sky - Morning		

Leq	Lmin	Lmax
64.9	0.0	0.0

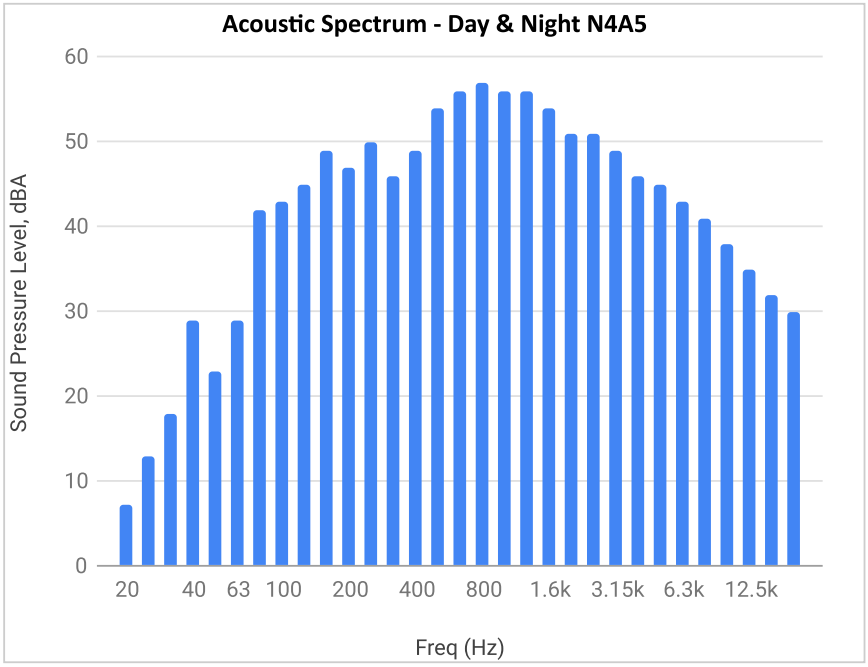
Ln 2	Ln 8	Ln 25	Ln 50	Ln 90	Ln 99
0.0	0.0	0.0	0.0	0.0	0.0

Table 1: Summary Measurement Data

Source/System	Overall Source	Overall dB(A)	3rd Octave Band Data (dBA)																														
			20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1k	12.5	1.6k	2k	2.5k	3.15	4k	5k	6.3k	8k	10k	12.5	16k	20k
Day & Night N4A5	HVAC	64.9	7.3	13.0	18.0	29.0	23.0	29.0	42.0	43.0	45.0	49.0	47.0	50.0	46.0	49.0	54.0	56.0	57.0	56.0	56.0	54.0	51.0	51.0	49.0	46.0	45.0	43.0	41.0	38.0	35.0	32.0	30.0

Figure 1: Day & Night N4A5





Appendix E:
Construction Calcs

Activity	L_{eq} at 133 feet dBA	L_{Max} at 65 feet dBA
Grading	83	86
Building Construction	81	83
Paving	81	84

Equipment Summary	Reference (dBA) 50 ft Lmax
Rock Drills	96
Jack Hammers	82
Pneumatic Tools	85
Pavers	80
Dozers	85
Scrappers	87
Haul Trucks	88
Cranes	82
Portable Generators	80
Rollers	80
Tractors	80
Front-End Loaders	86
Hydraulic Excavators	86
Graders	86
Air Compressors	86
Trucks	86

Grading

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements									
No.	Equipment Description	Reference (dBA) 50 ft Lmax	Quantity	Usage Factor[1]	Distance to Receptor (ft)	Ground Effect	Shielding (dBA)	Calculated (dBA) Lmax	Calculated (dBA) Leq	Energy
1	Grader	86	1	40	65	0.5	0	83.2	79.2	82642150.6
2	Dozer	85	1	40	65	0.5	0	82.2	78.2	65644993.6
3	Tractor/Backhoe	80	2	40	65	0.5	0	80.2	76.2	41517539.4
							Lmax*	**86**	**Leq**	**83**
							Lw	**117**	**Lw**	**114**

Source: MD Acoustics, July 2018.

1- Percentage of time that a piece of equipment is operating at full power.

dBA – A-weighted Decibels

Lmax- Maximum Level

Leq- Equivalent Level

Feet	Meters	Ground Effect	No Shielding Leq dBA	1 dBA Shielding Leq dBA	2 dBA Shielding Leq dBA	3 dBA Shielding Leq dBA	4 dBA Shielding Leq dBA	5 dBA Shielding Leq dBA	6 dBA Shielding Leq dBA	7 dBA Shielding Leq dBA	8 dBA Shielding Leq dBA	9 dBA Shielding Leq dBA	10 dBA Shielding Leq dBA	11 dBA Shielding LeqdBA	12 dBA Shielding Leq dBA	13 dBA Shielding Leq dBA	14 dBA Shielding Leq dBA	15 dBA Shielding Leq dBA
50	**15.2**	**0.5**	**83**	**82**	**81**	**80**	**79**	**78**	**77**	**76**	**75**	**74**	**73**	**72**	**71**	**70**	**69**	**68**
60	18.3	0.5	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66
70	21.3	0.5	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
80	24.4	0.5	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63
90	27.4	0.5	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61
100	30.5	0.5	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
110	33.5	0.5	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59
120	36.6	0.5	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58
130	39.6	0.5	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57
140	42.7	0.5	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57
150	45.7	0.5	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56
160	48.8	0.5	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55
170	51.8	0.5	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54
180	54.9	0.5	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54
190	57.9	0.5	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53
200	61.0	0.5	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53
210	64.0	0.5	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52
220	67.1	0.5	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52
230	70.1	0.5	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
240	73.1	0.5	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
250	76.2	0.5	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
260	79.2	0.5	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
270	82.3	0.5	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
280	85.3	0.5	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
290	88.4	0.5	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
300	91.4	0.5	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
310	94.5	0.5	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
320	97.5	0.5	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
330	100.6	0.5	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
340	103.6	0.5	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
350	106.7	0.5	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
360	109.7	0.5	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
370	112.8	0.5	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46

Building Construction

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements									
No.	Equipment Description	Reference (dBA) 50 ft Lmax	Quantity	Usage Factor[1]	Distance to Receptor (ft)	Ground Effect	Shielding (dBA)	Calculated (dBA) Lmax	Calculated (dBA) Leq	Energy
1	Cranes	82	1	40	65	0.5	0	79.2	75.2	32900432.8
2	Forklift/Tractor	80	2	40	65	0.5	0	80.2	76.2	41517539.4
3	Generator	80	1	40	65	0.5	0	77.2	73.2	20758769.7
4	Tractor/Backhoe	80	1	40	65	0.5	0	77.2	73.2	20758769.7
							Lmax*	**83**	**Leq**	**81**
							Lw	**114**	**Lw**	**112**

Source: MD Acoustics, July 2018.
1- Percentage of time that a piece of equipment is operating at full power.
dBA – A-weighted Decibels
Lmax- Maximum Level
Leq- Equivalent Level

Feet	Meters	Ground Effect	No Shielding Leq dBA	1 dBA Shielding Leq dBA	2 dBA Shielding Leq dBA	3 dBA Shielding Leq dBA	4 dBA Shielding Leq dBA	5 dBA Shielding Leq dBA	6 dBA Shielding Leq dBA	7 dBA Shielding Leq dBA	8 dBA Shielding Leq dBA	9 dBA Shielding Leq dBA	10 dBA Shielding Leq dBA	11 dBA Shielding LeqdBA	12 dBA Shielding Leq dBA	13 dBA Shielding Leq dBA	14 dBA Shielding Leq dBA	15 dBA Shielding Leq dBA
50	**15.2**	**0.5**	**81**	**80**	**79**	**78**	**77**	**76**	**75**	**74**	**73**	**72**	**71**	**70**	**69**	**68**	**67**	**66**
60	18.3	0.5	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
70	21.3	0.5	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62
80	24.4	0.5	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61
90	27.4	0.5	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59
100	30.5	0.5	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58
110	33.5	0.5	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57
120	36.6	0.5	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56
130	39.6	0.5	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55
140	42.7	0.5	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54
150	45.7	0.5	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54
160	48.8	0.5	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53
170	51.8	0.5	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52
180	54.9	0.5	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52
190	57.9	0.5	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
200	61.0	0.5	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
210	64.0	0.5	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
220	67.1	0.5	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
230	70.1	0.5	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
240	73.1	0.5	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
250	76.2	0.5	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
260	79.2	0.5	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
270	82.3	0.5	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
280	85.3	0.5	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
290	88.4	0.5	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
300	91.4	0.5	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
310	94.5	0.5	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
320	97.5	0.5	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
330	100.6	0.5	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
340	103.6	0.5	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
350	106.7	0.5	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
360	109.7	0.5	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44
370	112.8	0.5	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44

Paving

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements									
No.	Equipment Description	Reference (dBA) 50 ft Lmax	Quantity	Usage Factor[1]	Distance to Receptor (ft)	Ground Effect	Shielding (dBA)	Calculated (dBA) Lmax	Calculated (dBA) Leq	Energy
1	Pavers	86	1	40	65	0.5	0	83.2	79.2	82642150.6
2	Rollers	80	1	40	65	0.5	0	77.2	73.2	20758769.7
3	Paving Equipment	80	1	40	65	0.5	0	77.2	73.2	20758769.7
							Lmax*	**84**	**Leq**	**81**
							Lw	**116**	**Lw**	**113**

Source: MD Acoustics, July 2018.
1- Percentage of time that a piece of equipment is operating at full power.
dBA – A-weighted Decibels
Lmax- Maximum Level
Leq- Equivalent Level

Feet	Meters	Ground Effect	No Shielding Leq dBA	1 dBA Shielding Leq dBA	2 dBA Shielding Leq dBA	3 dBA Shielding Leq dBA	4 dBA Shielding Leq dBA	5 dBA Shielding Leq dBA	6 dBA Shielding Leq dBA	7 dBA Shielding Leq dBA	8 dBA Shielding Leq dBA	9 dBA Shielding Leq dBA	10 dBA Shielding Leq dBA	11 dBA Shielding LeqdBA	12 dBA Shielding Leq dBA	13 dBA Shielding Leq dBA	14 dBA Shielding Leq dBA	15 dBA Shielding Leq dBA
50	**15.2**	**0.5**	**81**	**80**	**79**	**78**	**77**	**76**	**75**	**74**	**73**	**72**	**71**	**70**	**69**	**68**	**67**	**66**
60	18.3	0.5	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
70	21.3	0.5	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62
80	24.4	0.5	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61
90	27.4	0.5	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
100	30.5	0.5	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58
110	33.5	0.5	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57
120	36.6	0.5	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56
130	39.6	0.5	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56
140	42.7	0.5	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55
150	45.7	0.5	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54
160	48.8	0.5	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53
170	51.8	0.5	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53
180	54.9	0.5	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52
190	57.9	0.5	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
200	61.0	0.5	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51
210	64.0	0.5	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
220	67.1	0.5	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50
230	70.1	0.5	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
240	73.1	0.5	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49
250	76.2	0.5	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
260	79.2	0.5	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
270	82.3	0.5	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
280	85.3	0.5	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
290	88.4	0.5	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47
300	91.4	0.5	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
310	94.5	0.5	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
320	97.5	0.5	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
330	100.6	0.5	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
340	103.6	0.5	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
350	106.7	0.5	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
360	109.7	0.5	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
370	112.8	0.5	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44

VIBRATION LEVEL IMPACT

Project:	Habitat for Humanity IS/EA	Date: 12/20/22
Source:	Large Bulldozer	
Scenario:	Unmitigated	
Location:	Project Site	
Address:		

PPV = PPVref(25/D)^n (in/sec)

DATA INPUT

Equipment = Type	2	Large Bulldozer	INPUT SECTION IN BLUE
PPVref =	0.089	Reference PPV (in/sec) at 25 ft.	
D =	65.00	Distance from Equipment to Receiver (ft)	
n =	1.10	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

DATA OUT RESULTS

PPV =	**0.031**	IN/SEC	OUTPUT IN RED

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix G
Local Transportation Assessment

MAT Engineering, Inc.

www.matengineering.com
17192 Murphy Avenue #14902
Irvine, CA 92623
Ph: 949.344.1828

February 10, 2026

Ms. Starla Barker
DE NOVO PLANNING GROUP
180 East Main Street #108
Tustin, CA 92780

Subject: **Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening, City of South Gate, California**

Dear Starla,

MAT Engineering, Inc. is pleased to submit this trip generation study and VMT screening for the proposed Long Beach Boulevard multifamily residential project in the City of South Gate.

This analysis has been prepared in accordance with the scope previously reviewed and approved by City staff. A copy of the approved scope is contained in **Attachment D**.

A. Project Description & Location

The project site is located on the southwest corner of the Long Beach Boulevard / Willow Place intersection in the City of South Gate.

Existing uses on the project site consist of an auto repair/tire shop with an area of approximately 650 square feet.

The proposed project consists of removal of the existing auto repair/tire shop with development of 14 dwelling units of three-story multi-family residential use.

Access for the proposed project is planned via two driveways; one driveway on Willow place and one right-in/right-out driveway on Long Beach Boulevard.

Exhibit A shows the project location. **Exhibit B** shows the proposed site plan.

B. Project Trip Generation

Trip generation represents the amount of trips attracted and produced by a land use.

The trip generation for the existing use and the proposed project is based upon the specific land uses that have been planned for this project and has been determined utilizing the Institute of Transportation Engineers (ITE) trip generation rates which is an industry standard for calculating trips associated with land uses.

Table 1 shows the trip ITE trip generation rates for the existing and also the proposed uses based on the ITE. A copy of the ITE rates descriptions for these land uses is contained in **Attachment B**.

Table 1
ITE Trip Generation Rates

Land Use	ITE Code	Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Auto Repair/Care	942	TSF	2.55	1.32	3.87	2.25	2.65	4.90	3.89
Multi-family Residential (Low-Rise)	220	DU	0.10	0.31	0.41	0.32	0.20	0.52	6.21

Notes:

Source: 2025 ITE 12th Edition Trip Generation Manual;

TSF = Thousand Square Feet; DU = Dwelling Units

Utilizing the ITE trip generation rates from **Table 1**, **Table 2** shows a summary of the net trip generation for the proposed project after accounting for the existing land use which will be removed.

Table 2
Project Trip Generation

Land Use	Quantity	Units	ITE Code	Peak Hour						Daily
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Proposed Use (14 Dwelling Units of Low-Rise Multifamily Residential Units)	14	DU	220	1	5	6	4	3	7	87
Existing Use (650 Square Feet of Auto Repair Use)	0.650	TSF	942	- 2	- 1	- 3	- 1	- 2	- 3	- 22
NET Total				**- 1**	**4**	**3**	**3**	**1**	**4**	**65**

Source::

Institute of Transportation Engineers (ITE) 2025 Trip Generation Manual (12th Edition)

As shown in **Table 2**, based on the ITE trip generation rates:

- Without taking any credit for the existing use, the proposed project is forecast to generate approximately 87 daily trips which include approximately 6 AM peak hour trips and approximately 7 PM peak hour trips.

- The existing use generates approximately 22 daily trips which include approximately 3 AM peak hour trips and approximately 3 PM peak hour trips.

- After taking credit for the existing use, the proposed project is forecast to generate approximately 65 NET additional daily trips which include approximately 3 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

C. Trip Generation Evaluation & Access Analysis

As shown in **Table 2**, after taking credit for the existing use, the proposed project is forecast to generate approximately 65 NET additional daily trips which include approximately 3 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

Based on industry standards and the Los Angeles County traffic study requirements, typically, a full traffic study is required when a project generates more than 50 peak hour trips or 110 daily trips. Since the proposed project is expected to generate a low number of trips, a full traffic study is not required for the proposed project. Due to the low number of trips, the project is expected to not have an adverse impact on the level of service and operations of the surrounding circulation system and roadway network.

D. Proposed Scope of Vehicle Miles Traveled (VMT) Analysis

In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Effective July 1, 2020, the previous CEQA metric of LOS, typically measured in terms of automobile delay, roadway capacity and congestion, generally will no longer constitute a significant environmental impact.

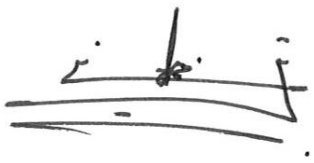
Based on Section 3.1.2.1 of the County of Los Angeles traffic study requirements (July 23, 2020), non-retail projects generating less than 110 daily trips could be screened out from requiring a full VMT analysis. A copy of the guidelines is contained in Attachment C.

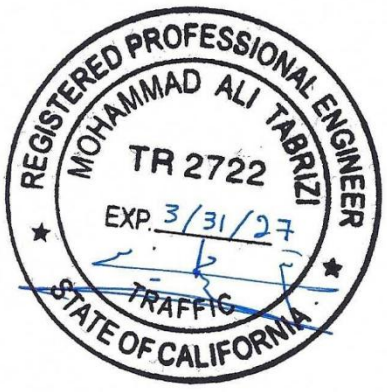
Hence, the proposed project screens out for requiring a full VMT analysis and has a less than significant traffic impact under the California Environmental Quality Act (CEQA).

MAT Engineering Inc. appreciates the opportunity to provide this technical letter and memorandum. If you have any questions, concerns, or comments, please contact us at 949-344-1828 or at@matengineering.com.

Respectfully submitted,

MAT ENGINEERING, INC.



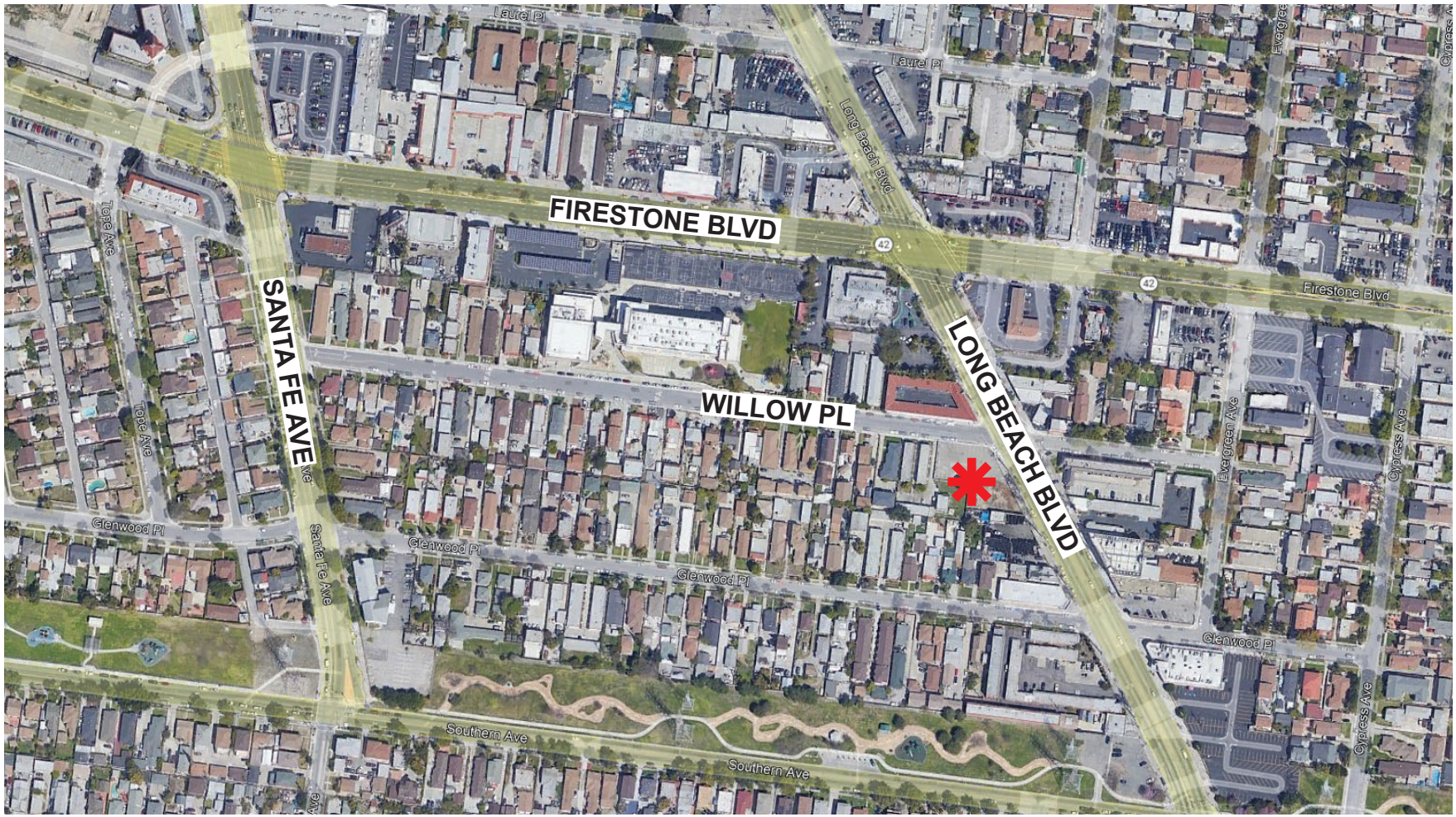


Alex Tabrizi, PE, TE

President

Attachment A

Exhibits



Legend:

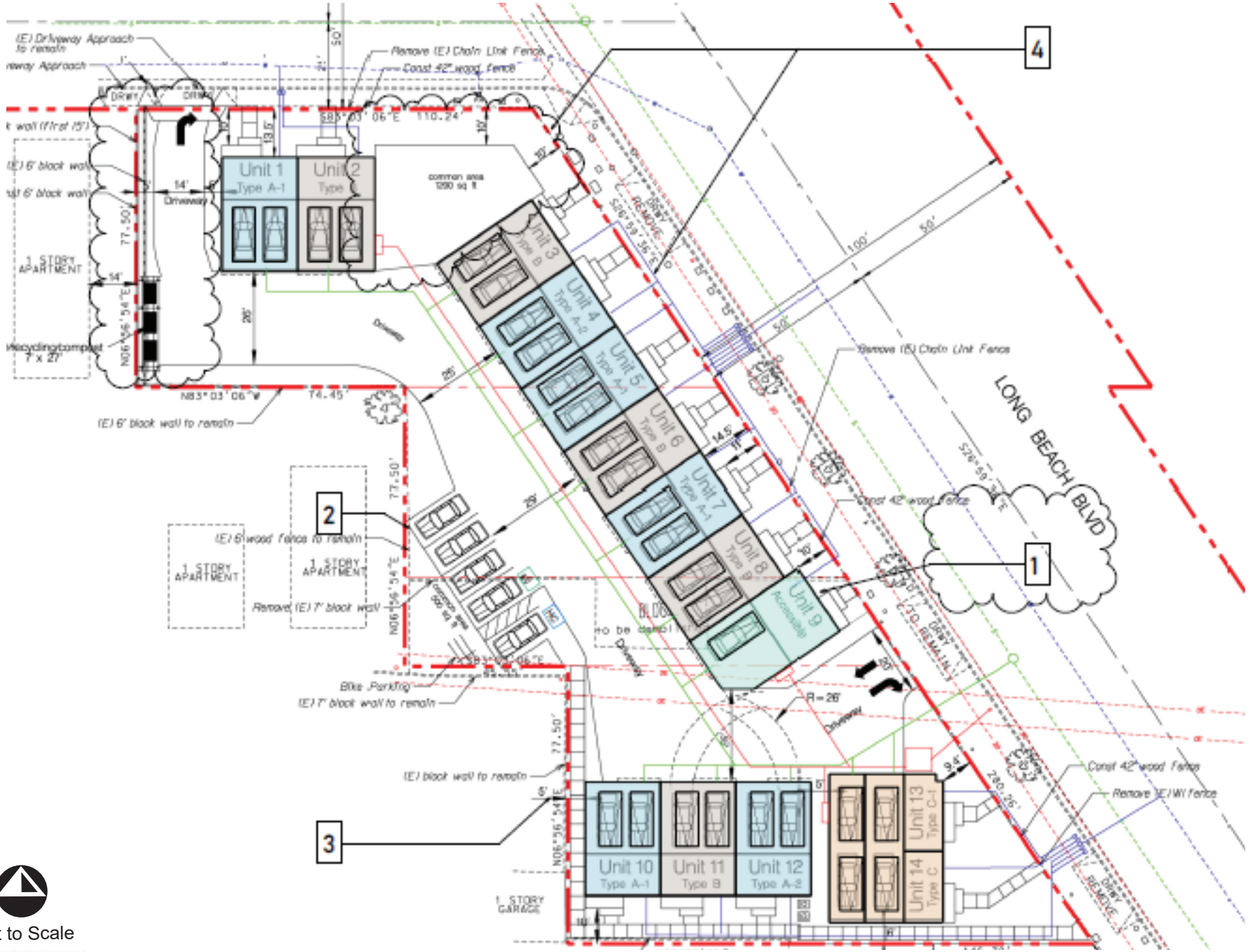
Site Location

Not to Scale

ENGINEERING, INC.

Project Location

Exhibit A



Not to Scale

ENGINEERING, INC.

Site Plan

Exhibit B

Attachment B

ITE Data

Land Use: 220
Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing is a residential building with two or three floors (levels) of residences. Various configurations fit this description, including the following:

- Walk-up apartment or multiplex—access to the individual dwelling units is typically internal to the structure and provided through a shared entry, stairway, and hallway.
- Mansion apartment with several dwelling units within what appears from the outside to be a single-family dwelling unit.
- Stacked townhouse designed to match the external appearance of a townhouse, but which has dwelling units that share both floors and walls and with access through a central entry and stairway.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there was an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Arizona, British Columbia (CAN), California, Delaware, Florida, Illinois, Maine, Massachusetts, Minnesota, New Jersey, New York, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Utah, and Washington.

Source Numbers

357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076, 1219, 1236, 1265, 1267

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

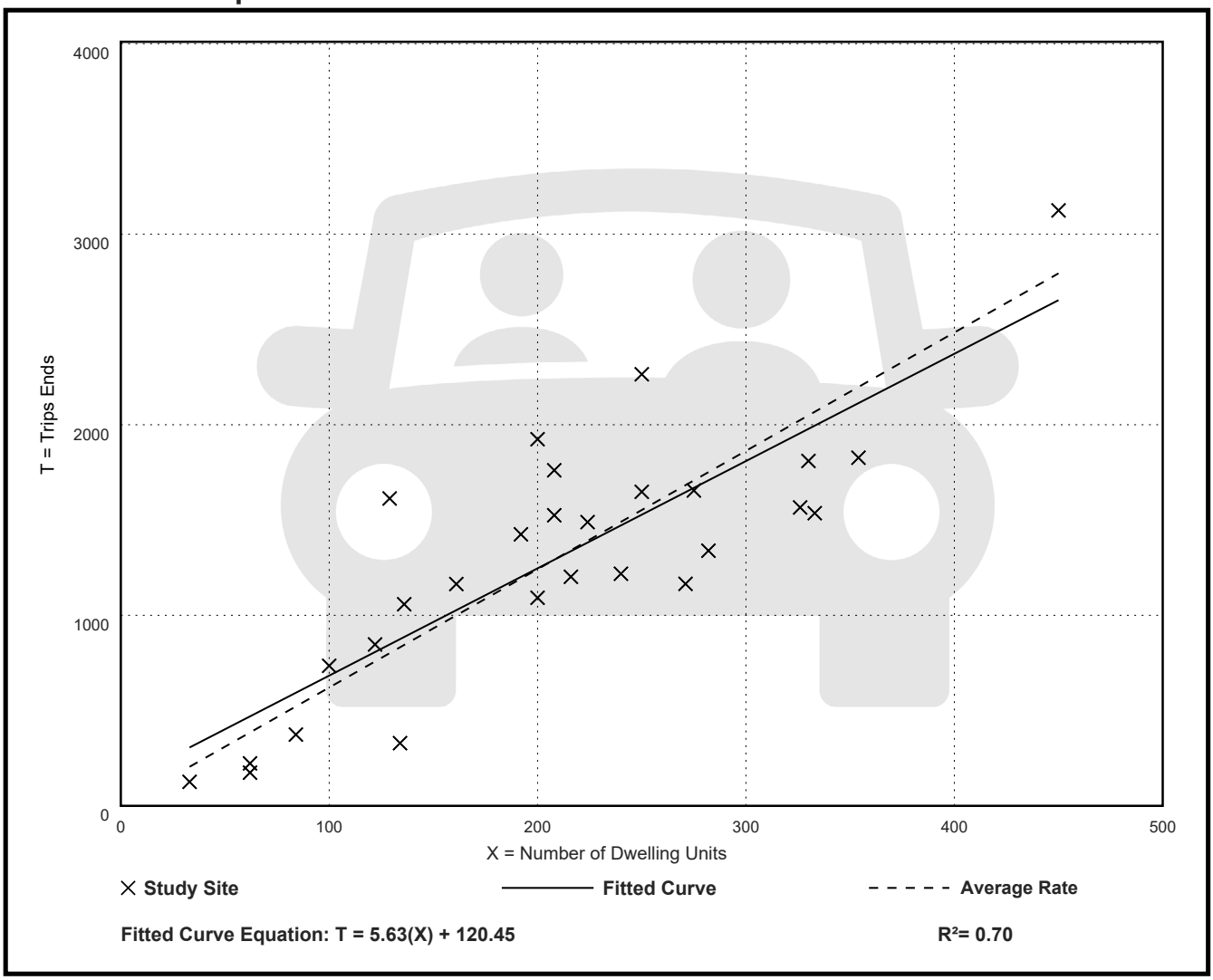
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 28
Avg. Num. of Dwelling Units: 208
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.21	2.46 - 12.50	1.87

Data Plot and Equation



Fitted Curve Equation: T = 5.63(X) + 120.45

R^2= 0.70

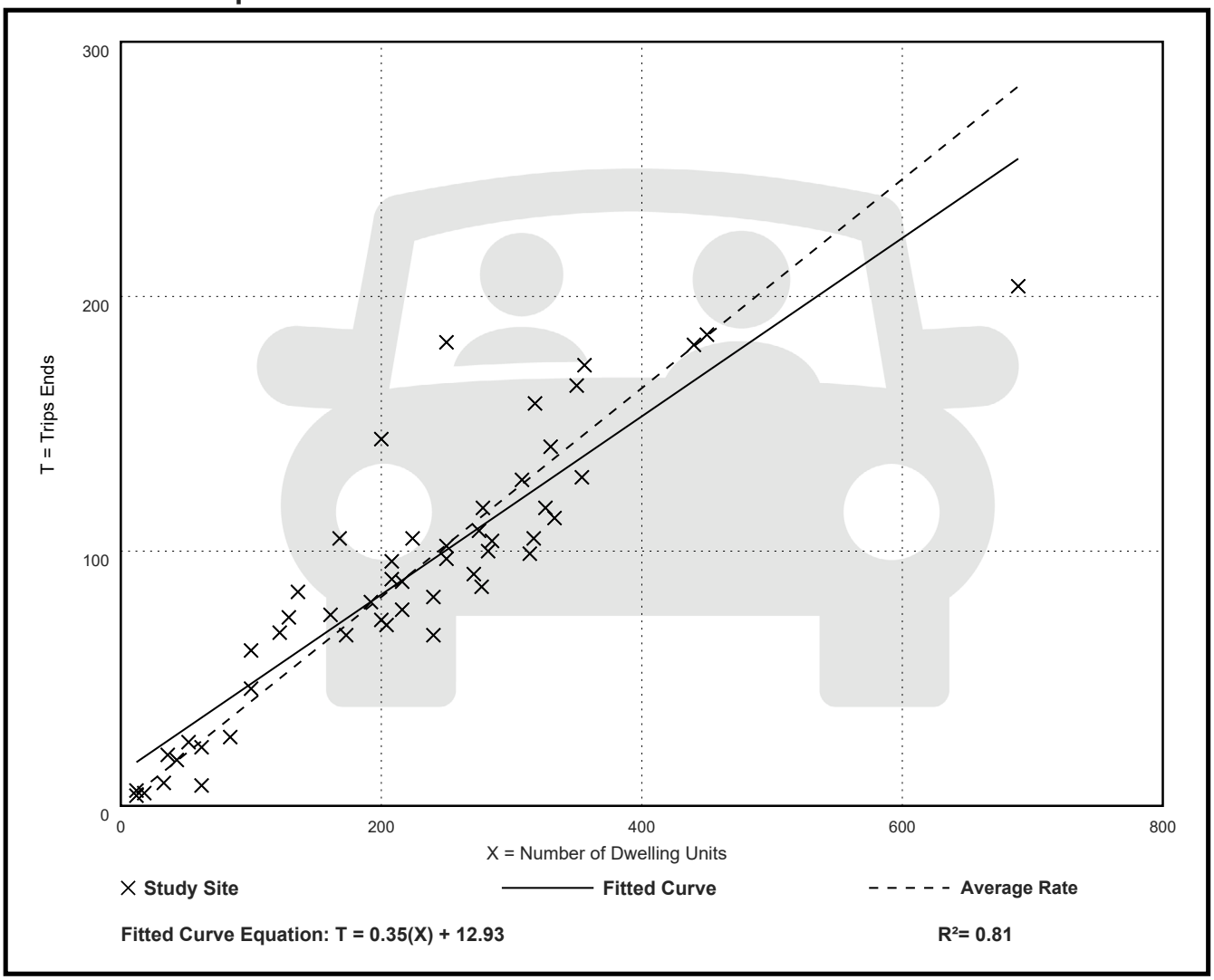
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	219
Directional Distribution:	24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.13 - 0.73	0.10

Data Plot and Equation



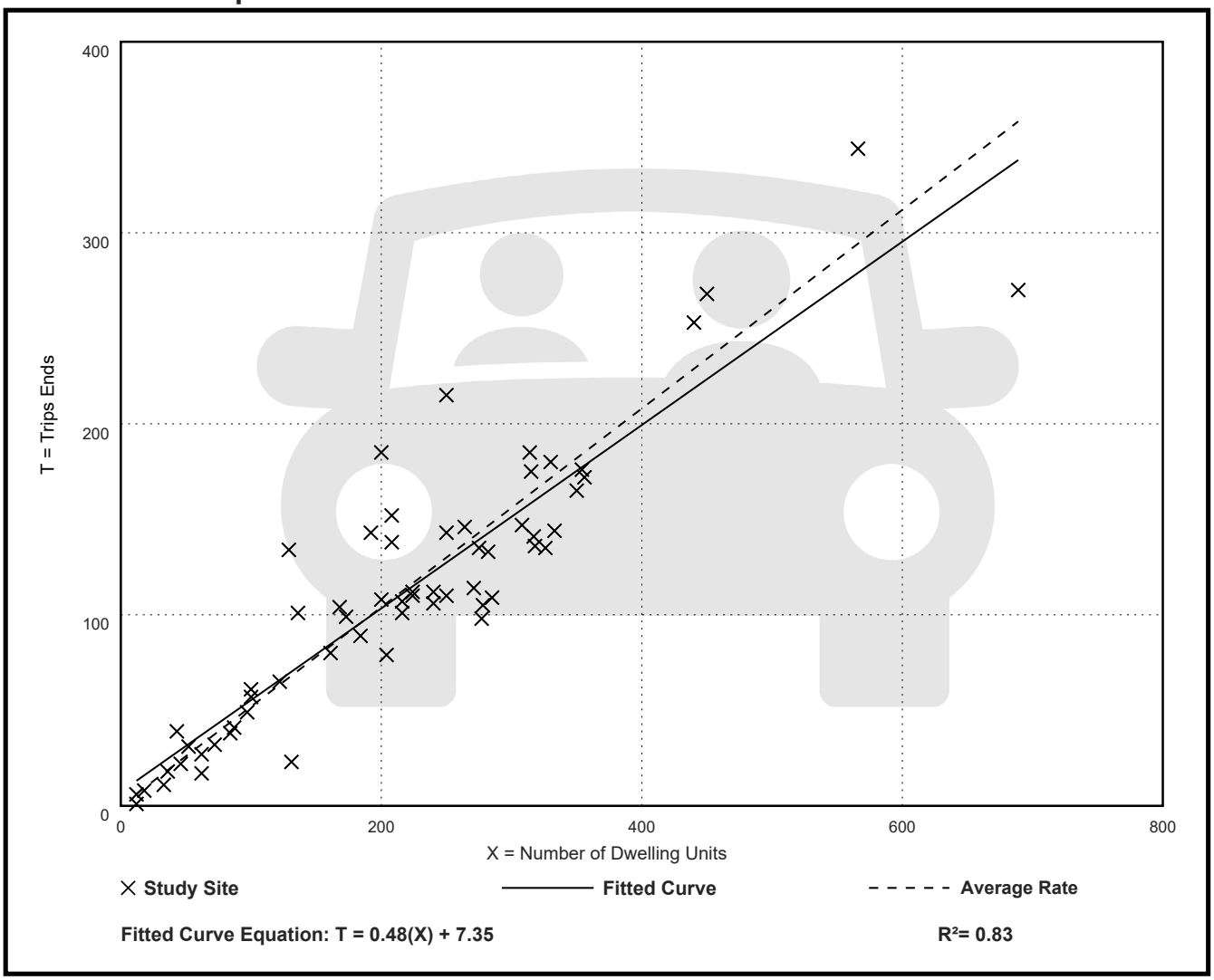
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	61
Avg. Num. of Dwelling Units:	215
Directional Distribution:	62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.08 - 1.04	0.13

Data Plot and Equation



Fitted Curve Equation: T = 0.48(X) + 7.35

R^2= 0.83

Land Use: 942
Automobile Care Center

Description

An automobile care center houses numerous businesses that provide automobile-related services, such as repair and servicing, stereo installation, and seat cover upholstering.

Additional Data

The sites were surveyed in the 1990s and the 2020s in Florida and New Jersey.

Source Numbers

439, 1219

Automobile Care Center
(942)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

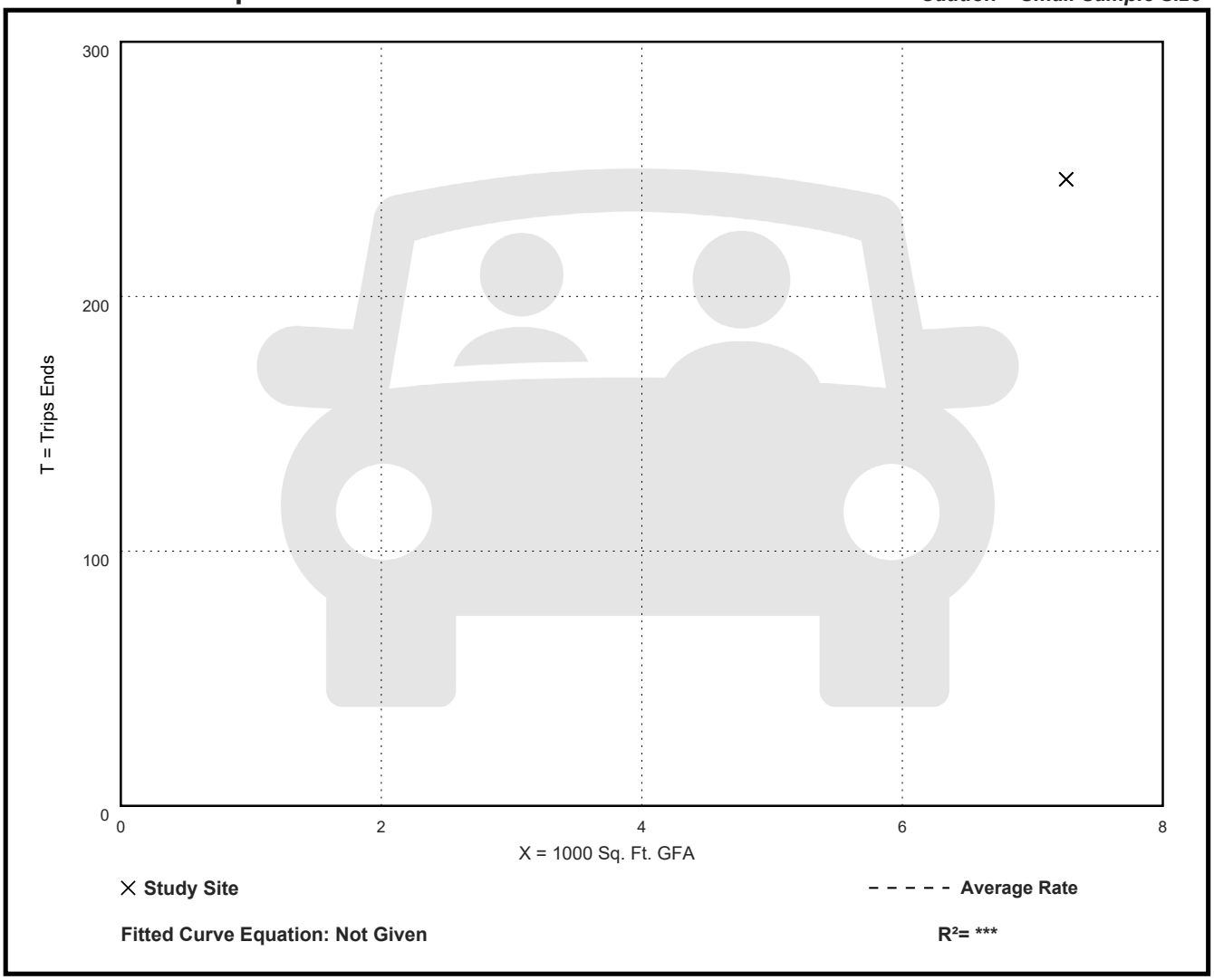
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 7
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.89	33.89 - 33.89	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Automobile Care Center
(942)

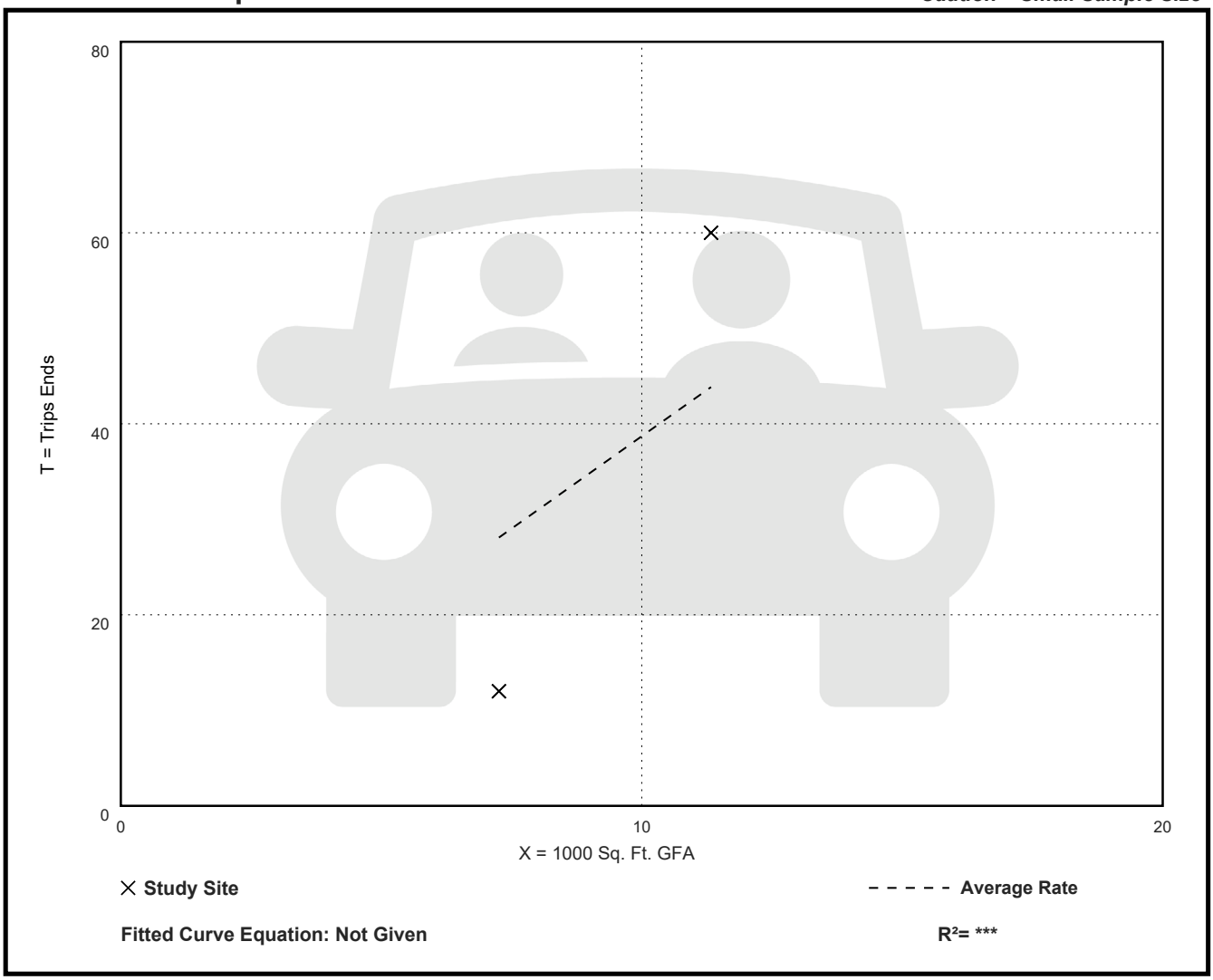
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.87	1.65 - 5.30	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Automobile Care Center
(942)

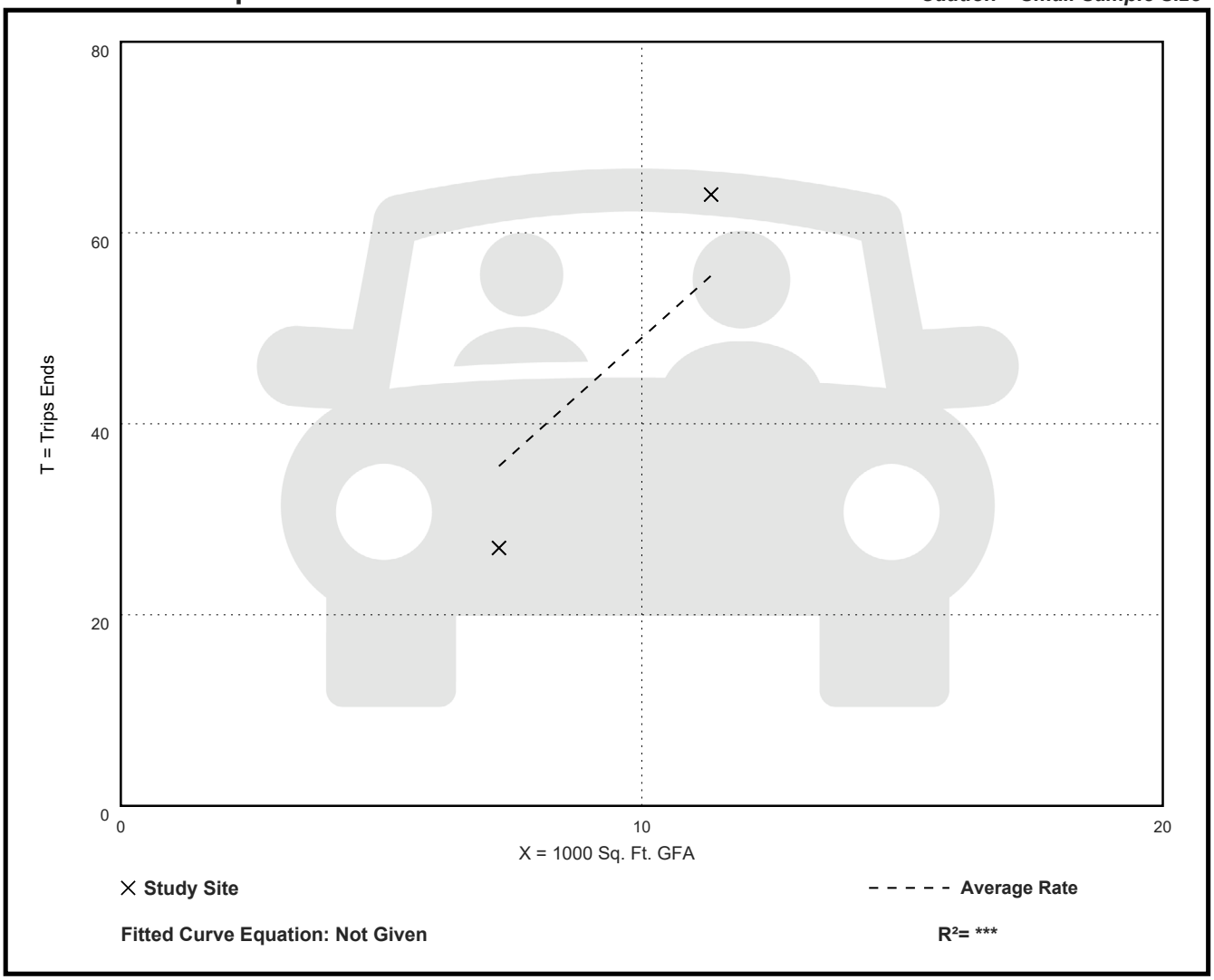
Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	2
Avg. 1000 Sq. Ft. GFA:	9
Directional Distribution:	46% entering, 54% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.90	3.72 - 5.65	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Attachment C

Los Angeles County Public Works Transportation Impact Analysis Guidelines



Los Angeles County Public Works

Transportation Impact Analysis Guidelines

July 23, 2020
Prepared by Public Works

Table of Contents

Section 1. - Introduction 3
Section 2. - Overall Steps 4
Section 3. - California Environmental Quality Act (CEQA) Transportation Impact Analysis Process 6
Section 3.1. - Development Projects 6
Section 3.1.1. - Introduction 6
Section 3.1.2. - Screening Criteria 6
Section 3.1.3. - Impact Criteria 8
Section 3.1.4. - Methodology 11
Section 3.1.5. - Mitigation 15
Section 3.2. - Transportation Projects 17
Section 3.2.1. - Introduction 17
Section 3.2.2. - Screening Criteria 17
Section 3.2.3. – Impact Criteria 19
Section 3.2.4. - Methodology 19
Section 3.2.5. - Mitigation 21
Section 4. – Site Access Studies 22
Section 4.1. – Operational Analysis 22
Section 4.1.1. - Introduction 22
Section 4.1.2. - Screening Criteria 22
Section 4.1.3. - Evaluation Criteria 22
Section 4.1.4. - Methodology 22
Section 4.1.5. – Recommended Action 25
Section 4.2 – Construction Phase Analysis 25
Section 4.2.1. - Introduction 25
Section 4.2.2. - Screening Criteria 25
Section 4.2.3. - Evaluation Criteria 26
Section 4.2.4. - Methodology 27
Section 4.2.5. - Recommended Action 27
Section 4.3. – Local Residential Street Cut-Through Analysis 27
Section 4.3.1. - Introduction 27
Section 4.3.2. - Screening Criteria 28
Section 4.3.3. - Methodology 29

Section 4.3.4. - Recommended Action 29
Section 4.4 - Additional Site Access Analysis 31
Section 4.4.1 - Introduction 31
Section 4.4.2. - Screening Criteria 31
Section 4.4.3. - Evaluation and Methodology 31
Section 4.4.4. - Recommended Actions 31
Section 5. - Study Format and Required Content 32
Section 5.1. - Project Description 32
Section 5.2. - Site Conditions 32
Section 5.3. - Analysis, Discussion, and Results 33
Section 5.4. – Mitigation Measures and Recommended Actions 33
Section 5.4.1. - Introduction 33
Section 5.4.2. - Transportation Demand Management Measures 34
Section 5.4.3. - Physical Infrastructure Improvements 34
Section 5.4.4. - Mitigation Monitoring and Reporting Program in CEQA Documents 34

Section 1. - Introduction

Public Works generally will require the preparation and submission of a Transportation Impact Analysis for projects that meet the following criteria:

- Development Projects:
  - Estimated to generate a net increase of 110 or more daily vehicle[1] trips.
- Transportation Projects:
  - Likely to induce additional vehicle[1] miles traveled (VMT) by increasing vehicle capacity.
- Projects for which a Transportation Impact Analysis is required by County ordinance; regulation; resolution; court order; or directive from the Board of Supervisors, Regional Planning Commission.

A Transportation Impact Analysis requires analyses and forecasting of impacts or deficiencies to the circulation system generated by the project. The Transportation Impact Analysis identifies feasible measures or corrective conditions to offset any impacts or deficiencies.

The Transportation Impact Analysis shall be prepared under the direction of, and be signed by, a Professional Engineer, registered in the State of California to practice either Traffic or Civil Engineering.

[1] The term vehicle refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty trucks should only be included in a traffic impacts analysis for modeling convenience and ease of calculation (e.g., where models or data provide combine auto and heavy-freight VMT) but should not contribute to a finding of significant traffic impact under any circumstances.

Section 2. - Overall Steps

The project applicant shall follow the general steps summarized below when preparing a transportation impact analysis for a discretionary development project or transportation project.

Step 1. Project Memo

The project applicant shall inform Public Works that a new Transportation Impact Analysis is being prepared. In this initial communication, the following information shall be provided:

A. Project Description – Provide a general description of the project, including size (defined by square footage per use and/or number of dwelling units) and use(s). The project description should include information on any phased construction and any unusual conditions. The project description shall specify a building address, Assessor's parcel number, and project title.

B. Project Site Plan – Submit the proposed project site plan, which shall clearly identify driveway or access location(s), loading/unloading areas, and parking design and circulation to help define the distribution of project trips. Considerations for traffic flow and movement should be designed and incorporated early in building and parking layout plans. To minimize and prevent last minute building design changes, project applicants should contact the Public Works Land Development Division and Public Works Traffic Safety and Mobility Division to determine the requirements for driveway width and internal circulation before finalizing the building and parking layout design.

Step 2. Other Agency Contacts

The project applicant shall consult with other agencies or adjacent jurisdictions (e.g., Caltrans, other cities, transit agencies, etc.) that may be affected by site access and travel demands generated by the project to ensure those agencies' transportation-related concerns and issues are properly addressed in the Transportation Impact Analysis. If, as part of site access and circulation evaluation (see Section 4), a Transportation Impact Analysis includes the evaluation of an intersection or intersections in an adjacent local jurisdiction, then any corrective actions deemed necessary to address circulation concerns should be reviewed by and confirmed in writing by that jurisdiction. Written confirmation of consultation with all affected agencies is required.

Step 3. Scoping Document

The project applicant shall prepare and submit a Scoping Document to Public Works through the EPIC-LA portal. The Scoping Document describes the

assumptions and parameters that shall be included in the Transportation Impact Analysis including any analysis requirements from other affected jurisdictions identified in Step 2.

Step 4. Data Collection

The project applicant shall gather qualitative and quantitative data needed to support the required analyses and components of the Transportation Impact Analysis. Traffic count data shall be collected in accordance with standards and methods established in the Transportation Impact Analysis Guidelines.

Step 5. Transportation Impact Analysis Submittal

The project applicant shall submit the completed Transportation Impact Analysis to Public Works through the EPIC-LA portal and ensure that all subsequent submittals of the Transportation Impact Analysis are dated and timestamped.

Step 6. Transportation Impact Analysis Confirmation of Findings Letter

Public Works will prepare and distribute a Transportation Impact Analysis Confirmation of Findings Letter after the fees have been submitted and the Transportation Impact Analysis has been reviewed and approved.

The Transportation Impact Analysis Confirmation of Findings Letter will be limited to summarizing the findings and requirements for the proposed project. Additional fees/deposits may be required should the project applicant request findings and requirements for additional project alternatives.

Step 7. Mitigation and Monitoring

The project applicant may be responsible for ongoing reporting, depending on the nature of the mitigation measures and corrective actions to be implemented by the project. Reporting and monitoring of Transportation Demand Management (TDM) measures implemented by the project to improve mobility options at and around a project site may also be required and will be described in the Transportation Impact Analysis Confirmation of Findings Letter.

Section 3. - California Environmental Quality Act (CEQA) Transportation Impact Analysis Process

Section 3.1. - Development Projects

Section 3.1.1. - Introduction

The updated CEQA Guidelines certified and adopted by the California Natural Resources Agency in December 2018 are now in effect. Accordingly, Public Works recognizes the need to provide information based on guidance from the Office of Planning and Research and the California Air Resources Board on the assessment of vehicle miles traveled (VMT), thresholds of significance, and mitigation measures for development projects and land use plans in accordance with the amended Appendix G question below:

- For a development project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?

For development projects, the intent of this question is to assess whether a proposed project or plan adequately reduces total VMT. Public Works provides the following guidance regarding screening and impact criteria to address this question. The following screening criteria and impact criteria are only meant to serve as guidance for projects to determine whether a Transportation Impact Analysis should be performed, and the criteria to determine if a project generates a significant transportation impact. The criteria shall be determined on a project-by-project basis as approved by Public Works.

Section 3.1.2. - Screening Criteria

Section 3.1.2.1. - Non-Retail Project Trip Generation Screening Criteria

If the answer is no to the question below, further analysis is not required, and a less than significant determination can be made.

- Does the development project generate a net increase of 110 or more daily vehicle[1] trips[2]?

A project's daily vehicle trip generation should be estimated using the most recent edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. If the project proposed land use is not listed in the ITE Trip Generation Manual, please submit a trip generation study to Public Works for review and approval.

Section 3.1.2.2. - Retail Project Site Plan Screening Criteria

A project that contains a local serving retail use is assumed to have less than significant VMT impacts for the retail portion of the project. If the answer to the following question

[2] As referenced in the Governor's Office of Planning and Research (OPR), *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018.

is no, a less than significant determination can be made for the portion of the project that contains retail uses.

- Does the project contain retail uses that exceed 50,000 square feet of gross floor area[2]?

However, if the retail project is part of a mixed-use project, then the remaining portion of the project may be subject to further analysis in accordance with other screening criteria in Section 3.1. Projects that include retail uses in excess of the Retail Project Site Plan Screening Criteria need to evaluate the entirety of the project's VMT.

Section 3.1.2.3. – Proximity to Transit Based Screening Criteria

If a project is located near a major transit stop or high-quality transit corridor, the following question should be considered:

- Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor[2]?

If the answer to the question above is yes, then the following subsequent questions should be considered:

- Does the project have a Floor Area Ratio[2] less than 0.75?
- Does the project provide more parking than required by the County Code[2]?
- Is the project inconsistent with the SCAG RTP/SCS[2]?
- Does the project replace residential units set aside for lower income households with a smaller number of market-rate residential units[2]?

If the answer to all four questions is no, further analysis is not required, and a less than significant determination can be made.

To determine the proposed change in residential units, the total number of lower income housing units that exist on the project site should be counted and compared to the total number of lower income and market-rate residential units proposed by the project. If there is a net decrease in residential units, the Proximity to Transit Based Screening Criteria cannot be utilized.

Section 3.1.2.4. – Residential Land Use Based Screening Criteria

Independent of the screening criteria for non-retail and retail projects, certain projects that further the State's affordable housing goals are presumed to have less than significant impact on VMT. If the project requires a discretionary action and the answer is yes to the question below, further analysis is not required, and a less than significant determination can be made.

- Are 100% of the units, excluding manager's units, set aside for lower income households[2]?

Section 3.1.3. - Impact Criteria

The project has a potentially significant VMT impact if it meets one or more of the criteria listed below. The impact criteria below are considered as potential options that may be selected as thresholds for determining significance. These impact criteria below are based on guidance published by OPR[2] and CARB[3] but their applicability to a specific project shall be justified with substantial evidence and is not presumed to be appropriate.

- Residential Projects The project's residential VMT[4] per capita would not be 16.8%[3] below the existing residential VMT[4] per capita for the Baseline Area in which the project is located (Table 3.1.3.-1),
- Office Projects. The project's employment VMT[5] per employee exceeding would not be 16.8%[3] below the existing employment VMT[5] per employee for the Baseline Area in which the project is located (see Table 3.1.3.-1),
- Regional Serving Retail Projects. The project would result in a net increase[2] in existing total VMT (see Table 3.1.3.-1),
- Land Use Plans. The plan total VMT per service population[6] (residents and employees) would not be 16.8%[3] below the existing VMT per service population[6] for the Baseline Area in which the plan is located (see Table 3.1.3.-1),
- For other land use types, please contact Public Works to determine which of the above are an appropriate threshold of significance to be utilized (see Table 3.1.3.-1).

Table 3.1.3-1 provides the Baseline VMT for the North and South areas of the County at the time these guidelines were prepared. The Baseline VMT applied in the Transportation Impact Analysis should be consistent with the year that the transportation study begins as defined in the Scoping Document.

[3] As referenced by the VMT reduction goals discussed in the California Air Resources Board, 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Goals, January 2019, Figure 3.
[4] Residential VMT is the VMT generated by Home-Based Work and Home-Based Other trip productions.
[5] Employment VMT is the VMT generated by Home-Based Work trip attractions.
[6] Service population is the sum of the number residents and the number of employees

Table 3.1.3.-1 – Baseline VMT for North and South County

Baseline Area	Residential VMT per Capita	Employment VMT per Employee	Total VMT per Service Population
North County	22.3	19.0	43.1
South County	12.7	18.4	31.1

The geographic boundaries for the North County and South County Baseline Areas are shown in Figure 3.1.3-1.

Figure 3.1.3.-1 North and South County Baseline VMT Boundaries

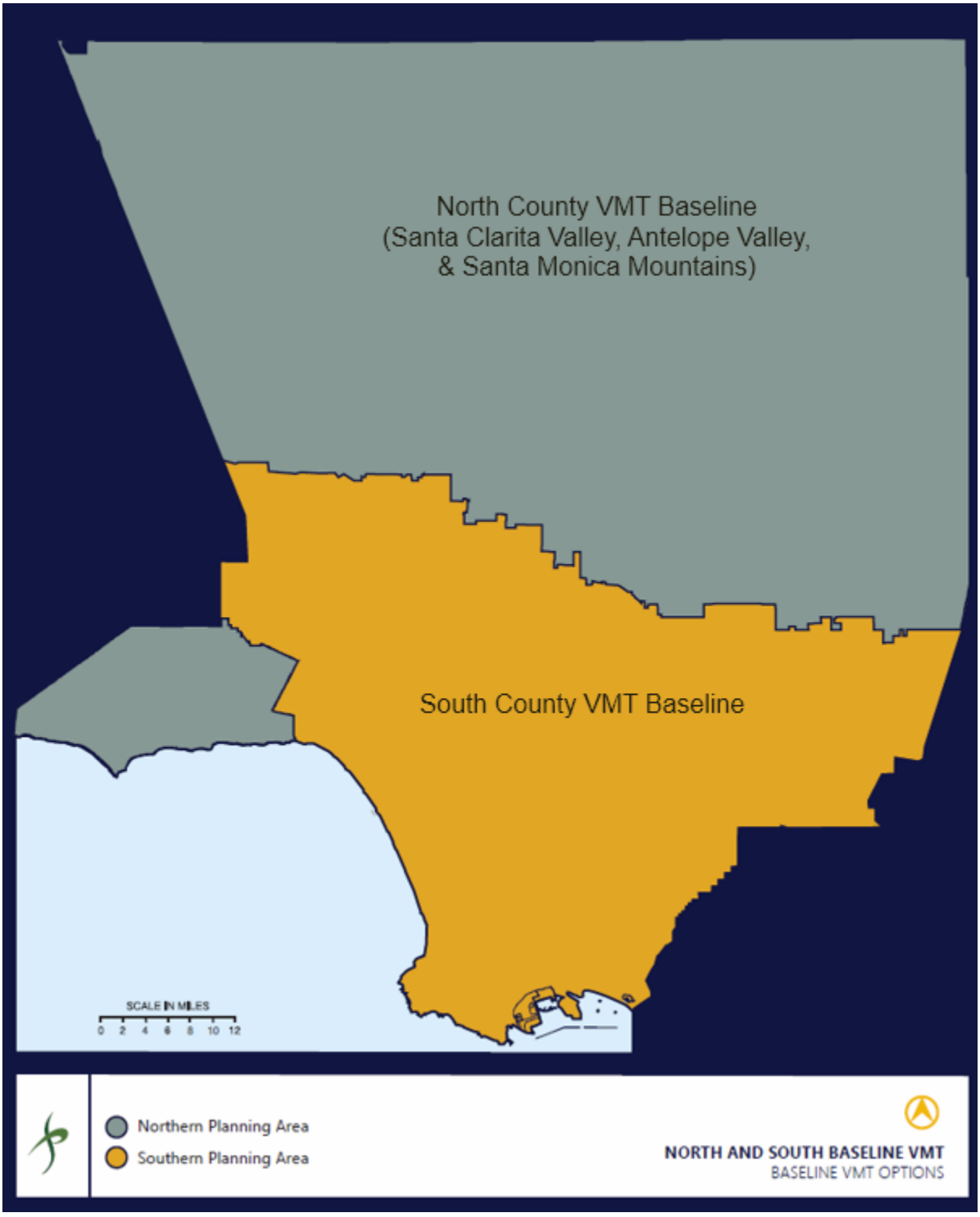


Table 3.1.3.-2 – VMT Impact Criteria (16.8% Below Area Baseline)

Baseline Area	Residential VMT per Capita	Employment VMT per Employee	Total VMT per Service Population (residents and employees)
North County	18.6	15.8	35.9
South County	10.6	15.3	25.9

Section 3.1.4. - Methodology

Section 3.1.4.1 - Evaluation

Screening and impact evaluation should be conducted for the following types of development projects:

- Non-Retail Land Uses:
  - Residential Land Uses:
    - Single-family housing,
    - Multi-family housing,
    - Affordable housing (for lower income households).
  - Office, Manufacturing, or Institutional Land Uses:
    - General office,
    - Medical office,
    - Light industrial,
    - Manufacturing,
    - Warehousing/self-storage,
    - K-12 schools,
    - College/university,
    - Hotel/motel.
- Retail Land Uses:
  - General retail,
  - Furniture store,
  - Pharmacy/drugstore,
  - Supermarket,
  - Bank,
  - Health club,
  - Restaurant,
  - Auto repair,
  - Home improvement superstore,
  - Discount store,
  - Movie theater.

The land uses described above are not intended to be inclusive of every project-type reviewed by Public Works and subject to CEQA. For these and all other land uses, the appropriate screening criteria and impact evaluation shall be determined on a project-by-project basis.

Section 3.1.4.2. - Project Impact Determination

- Residential Projects: Daily vehicle[1] trips, daily VMT, and daily residential VMT[4] per capita for residential projects should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT (see Section 3.1.5 regarding TDM strategies),

- Office Projects: Daily vehicle[1] trips, daily VMT, and daily employment VMT[5] per employee for office projects should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT,

- Regional Serving Retail Projects: The Scoping Document prepared by the project applicant and Public Works will outline one of the following methods for impact determination:

    - Preparation of a market-study-based transportation analysis submitted by the project applicant that demonstrates the project area is underserved for the proposed retail use and that the project will shorten existing shopping trips by creating an intervening location between trip origins and current retail destinations.

    - Run the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with and without the project. Since the overall number of trips in the model is based on home-based trips and is balanced to home-trip productions, the total number of trips will not be influenced materially by the introduction of the additional retail space. Rather, the model will redistribute home-shopping trips from other retail destinations to the proposed retail destination,

        - If the project is entirely retail, the following steps apply:
            - Determine the traffic analysis zone (TAZ) in which the project is located,

[7] *Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report*, Fehr & Peers, June 2020

- Convert the project retail land uses into the appropriate employment categories utilized in the model and adjust the socioeconomic parameters in the TAZ appropriately to reflect removal of existing land uses and addition of the project,
- Run the four-step model process for the model existing base year for the four-time periods in the model (AM peak period, midday period, PM peak period, nighttime period) for the base ("no project") scenario and for the "plus project" scenario,
- Calculate total VMT on the model network for each time period and sum to determine daily VMT for each scenario. The total VMT should capture both employee and home-shopping trips. Subtract the daily VMT for the base scenario from the daily VMT for the "plus project" scenario to determine the net change in daily VMT.

▪ If the proposed project is a mixed-use development including more than 50,000 square feet of retail, conduct steps similar to those described above. However, first create a "without retail" model scenario that includes the rest of the project's proposed land uses and then create and run the four-step model for this "with retail" scenario. Subtract the daily VMT for the "without retail" scenario from the daily VMT for the "with retail" scenario to determine the net change in daily VMT.

- Land Use Plans: Daily vehicle[1] trips, daily VMT, and daily total VMT per service population[6] for land use plans should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT,

- Unique Land Uses: Some projects will not fit into one of the above categories. In such cases, a customized approach may be required to estimate daily trips and VMT. The methodology and thresholds to be used in such cases should be developed in consultation with and approved by Public Works staff at the outset of the study,

- Mixed-Use Projects: The project VMT impact should be considered significant if any (one or all) of the project land uses exceed the impact criteria for that particular land use, taking credit for internal capture. In such cases, mitigation options that reduce the VMT generated by any or all of the land uses could be considered.

Section 3.1.4.3. - Cumulative Impacts Determination

Land use projects should consider both short- and long-term project effects on VMT. Short-term effects will be evaluated in the detailed project-level VMT analysis. Long-term, or cumulative effects is determined through consistency with the SCAG RTP/SCS. The

RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and GHG reduction targets. As such, projects that are consistent with this plan in terms of development location, density, and intensity, are part of the regional solution for meeting air pollution and GHG goals. Projects that are deemed to be consistent would have a less than significant cumulative impact on VMT. Development in a location where the RTP/SCS does not specify any development may indicate a significant impact on transportation. However, if a project does not demonstrate a significant impact in the project impact analysis, a less than significant impact in the cumulative impact analysis can also be determined. Projects that fall under the RTP/SCS's efficiency-based impact thresholds are already shown to align with the long-term VMT and greenhouse gas reduction goals of SCAG's RTP/SCS.

Land use projects that: (1) demonstrate a project impact after applying an efficiency based VMT threshold and (2) are not deemed to be consistent with the SCAG RTP/SCS could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether the project's cumulative impact on VMT is significant. This analysis could be conducted by running the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with the cumulative "no project" scenario representing the RTP/SCS cumulative year conditions and the cumulative "plus project" scenario representing the reallocation of the population and/or employment growth based on the land supply changes associated with the proposed project. Baseline Area VMT, residential VMT per capita, or employment VMT per employee (depending on project type) would be calculated for both scenarios, and any increase in VMT, residential VMT per capita, or employment VMT per employee (depending on project type) above that which was forecasted in the RTP/SCS would constitute a significant impact.

When specifically evaluating the VMT impacts of regional-serving retail, the cumulative analysis would include additional steps under the project impact methodology to compare a cumulative "plus project" scenario with the cumulative "no project" scenario. The cumulative "no project" scenarios represents the adopted RTP/SCS cumulative year conditions (as incorporated into the SCAG RTP/SCS model). This would involve the following additional steps:

- Determine the traffic analysis zone (TAZ) in which the project is located,
- Convert the project land uses into the appropriate employment categories utilized in the RTP/SCS horizon year model. Adjust the socioeconomic parameters in the TAZ appropriately to reflect removal of the existing land uses and addition of the project,
- Run the four-step model process for the model's cumulative "no project" scenario for the four-time periods in the model (AM peak period, midday period, PM peak period, nighttime period). Then do the same for the base cumulative "no project" scenario and for the cumulative "plus project" scenario,
- Calculate total VMT on the model's network for each time period as well as the sum total to determine daily VMT for each scenario. Subtract the daily VMT for the

base cumulative “no project” scenario from the daily VMT for the cumulative “plus project” scenario to determine the net change in daily VMT.

Land use plans that: (1) demonstrate a project impact after applying an efficiency based VMT threshold and (2) are not deemed to be consistent with the SCAG RTP/SCS could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether the Plan’s cumulative impact on VMT is significant. This analysis could be conducted by running the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with the cumulative “no project” scenario representing the RTP/SCS cumulative year conditions and the cumulative “plus project” scenario representing the reallocation of the population and/or employment growth based on the land supply changes associated with the proposed plan. Total VMT and VMT per service population would be calculated for both scenarios, and any increase in VMT above that which was forecasted in the RTP/SCS would constitute a significant impact.

Section 3.1.5. - Mitigation

Section 3.1.5.1. - Development Project Mitigations

Potential mitigation measures for a development project’s VMT impacts can include the following:

- Transportation demand management (TDM) strategies beyond those that will be included as project design features. These strategies shall be demonstrated to be effective in reducing VMT. Some of these may include, but are not limited to, the following described in Table 3.1.5-1 below. Substantial evidence should be provided to the Public Works to support the claimed effectiveness of the measure(s),

Table 3.1.5-1: TDM Strategies

Category	Measure
Commute Trip Reduction	• Commute Trip Reduction Programs with Required Monitoring • Ride Sharing Programs • Subsidized or Discounted Transit Programs • Telecommuting • Alternative Work Schedules
Land Use/Location	• Increase Transit Accessibility
Parking Policy/Parking	• Unbundle parking
Neighborhood/Site Enhancement	• Pedestrian Network Improvements • Traffic Calming Measures • Car Sharing Programs

- Additional TDM measures beyond those listed above may be considered, if such measure is used to quantitatively reduce a project's VMT estimate. Substantial evidence should be provided to Public Works to support the effectiveness of the measure,
- For a single-use project, introducing compatible additional land uses to allow for internalization of trips,
- For a mixed-use project, modifying the project's land use mix to increase internalization of trips, reduce external trip generation, and serve the local community.

Section 3.1.5.2. - Land Use Plans Mitigations

Potential mitigation measures for land use plan VMT impacts can include:

- Reallocation of future land use development to increase land use variety and density in transportation-efficient locations (e.g., proximity to jobs and housing, proximity to transit, proximity to services),
- Measures to enhance the public transit system and/or connections to the system including active transportation mode improvements, such as infrastructure improvements, programs, or education and marketing,
- Measures to encourage reduced reliance on automobile trips and encourage transit and active transportation modes.

Section 3.2. - Transportation Projects

Section 3.2.1. - Introduction

Transportation projects that increase vehicular capacity can lead to additional travel on the roadway network, which can include induced vehicle travel due to factors such as increased speeds and induced growth. To provide consistency across transportation projects and achieve the County's sustainability goals, the screening criteria for transportation impacts is based on the question below:

- For a transportation project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?

For transportation projects, the intent is to assess whether a transportation project induces substantial additional VMT. The following screening criteria and impact criteria are meant to serve as guidance for projects to determine whether a Transportation Impact Analysis should be performed, and whether a project generates a significant transportation impact. The criteria will be considered on a project-by-project basis as approved by Public Works.

Section 3.2.2. - Screening Criteria

If the answer is no to the following question, further analysis will not be required, and a less than significant impact determination can be made for that threshold:

- Would the project include the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle (HOV) lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than one mile in length designed to improve roadway safety)[2]?

Transit and active transportation projects and projects that reduce roadway capacity generally reduce VMT and, therefore, are presumed to cause a less-than-significant impact. Transportation projects that are not likely to lead to a substantial or measurable increase in vehicle travel and would, therefore, not be required to prepare an induced travel analysis supported by the OPR technical advisory[2], are listed below:

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity,
- Roadside safety devices or hardware installation such as median barriers and guardrails,

- Roadway shoulder enhancements to provide "breakdown space" - dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes,
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety,
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes,
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit,
- Conversion of existing general-purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel,
- Addition of a new lane that is permanently restricted to use only by transit vehicles,
- Reduction in number of through lanes,
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane to separate preferential vehicles (e.g., high-occupancy vehicles [HOV], high-occupancy toll [HOT], or trucks) from general vehicles,
- Installation, removal, or reconfiguration of traffic control devices,
- Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow,
- Timing of signals to optimize vehicle, bicycle or pedestrian flow,
- Installation of roundabouts or traffic circles,
- Installation or reconfiguration of traffic calming devices,
- Adoption of, or increase, in tolls,
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase.
- Initiation of new transit service,
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes,
- Removal or relocation of off-street or on-street parking spaces,
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs),
- Addition of traffic wayfinding signage,
- Rehabilitation and maintenance projects that do not add motor vehicle capacity,

- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way,
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non- motorized travel,
- Installation of publicly available alternative fuel/charging infrastructure,
- Adding of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor.

Section 3.2.3. – Impact Criteria

The project has a potentially significant VMT impact if it meets the criteria listed below. The impact criteria below are considered as a potential option that may be selected as thresholds for determining significance. The impact criteria below is based on guidance published by OPR[2], but their applicability to a specific project shall be justified with substantial evidence and is not presumed to be appropriate.

- The project will increase the project area VMT, as measurable by the SCAG RTP/SCS base year Travel Demand Forecasting Model plus an induced travel elasticity factor per lane mile[2].

Section 3.2.4. - Methodology

Section 3.2.4.1. - Project Impacts Determination

The County utilizes the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) that is suitable for assessing change in VMT due to a given roadway project in its land use/transportation context. This model should be used to calculate the change in VMT from transportation projects that, by definition, are considered to have the potential for inducing VMT.

For the direct measurement of project impacts, the SCAG RTP/SCS model's base year network should be modified to reflect the vehicle capacity-enhancements that would result from the proposed transportation project. The base year model should be run with and without the proposed transportation project, without adjusting the model's land use inputs, to isolate the potential change in network VMT with the project as compared to the baseline. The assessment should cover the full area in which driving patterns are expected to change and include supporting evidence for why such area was selected.

The SCAG RTP/SCS model is capable of adjusting trip lengths, mode split, and route choice in response to network changes. However, the model does not include the ability to modify land use in response to changes to the transportation system and will not increase trips to reflect latent demand. Therefore, such induced travel should be estimated by applying an induced demand elasticity factor available from appropriate academic literature.

Accordingly, the VMT impact of a transportation project shall be calculated as the direct change in VMT as estimated by the SCAG RTP/SCS model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with and without the project plus a factor for induced demand calculated as follows:

- Run the SCAG RTP/SCS model with and without the transportation project to isolate the potential direct change in network VMT due to changes in trip length, mode split, and route choice,
- Using the SCAG RTP/SCS model, determine the total modeled lane-miles over the project area that fully captures travel behavior changes resulting from the project,
- Determine the percent change in total lane miles that will result from the project,
- Using the SCAG RTP/SCS model, determine the total existing VMT over that same area,
- Multiply the percent increase in lane miles by the existing VMT and then multiply that by the elasticity factor from the latest induced travel literature to determine the induced VMT,
- Add the induced VMT to the modeled change in network VMT due to trip length, mode split, and route choice.

Section 3.2.4.2. - Cumulative Impacts Determination

Analyses should consider both short- and long-term project effects on VMT. Short-term effects will be evaluated in the project-level VMT analysis described above. Long-term, or cumulative, effects will be determined through consistency with the SCAG RTP/SCS. The RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas (GHG) reduction targets. As such, transportation projects that are included in this plan are part of the regional solution for meeting air pollution and GHG reduction goals. Transportation projects that are deemed to be consistent would have a less than significant cumulative impact on VMT.

Transportation projects that are not deemed to be consistent could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether such a project's cumulative impact on VMT is significant. This analysis would be conducted by running the RTP/SCS cumulative year conditions and the cumulative "plus project" scenario (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) incorporating the network changes due to the proposed transportation project. An induced demand elasticity factor should be applied to any increase in VMT thus determined, and any increase in VMT would constitute a significant impact because it could jeopardize regional air quality conformity or GHG reduction findings.

Section 3.2.5. – Mitigation

Mitigation measures that could reduce the amount of increased vehicle travel induced by capacity increases could include, but not be limited to, the following measures:

- Converting existing general-purpose lanes to HOV lanes, high occupancy toll (HOT) lanes, toll lanes, or bus lanes to encourage carpools and fund transit improvements,
- Implementing or funding off-site mobility improvements, including the initiation of transportation management organizations (TMOs),
- Implementing intelligent transportation systems (ITS) strategies to improve passenger throughput on existing lanes,
- Additional measures beyond those listed above, may be considered, if such measures are used to quantitatively reduce a project's VMT estimate, substantial evidence should be provided to support the claimed effectiveness of the measure(s).

Section 4. – Site Access Studies

Section 4.1. – Operational Analysis

Section 4.1.1. - Introduction

The site access and circulation constraints related to the provision of access to and from the project site may be analyzed as part of the project's environmental review. The analysis should address the site access and circulation needs of vehicles, bicycles and pedestrians. If the operation analysis is determined to be necessary in consultation with Public Works, operational performance may be quantified for primary site access points, unsignalized intersections integral to the project's site access, and signalized intersections in the vicinity of the project site.

Section 4.1.2. - Screening Criteria

Section 4.1.2.1. - Development Projects

For development projects, if the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect project access and circulation:

- Is the project required to submit a Transportation Impact Analysis?
- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning?

Section 4.1.3. - Evaluation Criteria

Section 4.1.3.1. - Operational Deficiencies

The Transportation Impact Analysis should include a quantitative evaluation of the project's expected access and circulation operations. Project access is considered constrained if the project's traffic would contribute to unacceptable queuing at nearby signalized intersections. Unacceptable or extended queuing may be defined as follows:

- Spill over from turn pockets into through lanes,
- Spill over into intersections.

Section 4.1.4. - Methodology

Section 4.1.4.1. - Level of Service and Queueing Methodology

Intersection level of service (LOS) and queueing methodologies from the latest edition of the Transportation Research Board Highway Capacity Manual (HCM) should be used to evaluate the operation of the project driveways and nearby intersections. For individual

isolated intersection analysis, the use of software packages such as Synchro, Vistro, or HCS that implement the HCM methodologies is acceptable.

Where oversaturated conditions currently exist, the operational analysis should be conducted using Synchro/SimTraffic or VISSIM simulation models to more accurately reflect the effect of downstream congestion on intersection operations. VISSIM should be used in areas with transit lanes or with high levels of pedestrians conflicting with vehicle turning movements

Section 4.1.4.2. - Study Area

Study locations should be determined in consultation with Public Works and should include:

- All primary project driveway(s),
- Unsignalized and/signalized intersections that are adjacent to the project or that are expected to be integral to the project's site access and circulation plan,
- Additional intersections may be necessary as determined by Public Works.

For most projects, analyze traffic for both the a.m. and p.m. weekday peak hours as determined by 24-hour traffic counts. For some projects, expanding the analysis to include midday or weekend periods may be appropriate if these are expected to be the prime periods of trip generation for the project.

Section 4.1.4.3. - Traffic Counts

Traffic counts should generally be conducted per the following guidance and by Section 4.1.4.2., unless otherwise directed by Public Works:

- Turning movement data at the study intersections:
    - Should be collected in 15-minute intervals,
    - Must include vehicle classifications, pedestrian volume counts, and bicycle counts,
    - Must include a minimum or 2 hours of traffic counts for each of the peak hours,
    - Must be taken on Tuesdays, Wednesdays or Thursdays,
    - Must exclude holidays, and the first weekdays before and after the holiday,
    - Must be taken on days when local schools or colleges are in session,
    - Must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents),
- Traffic counts used from other traffic studies in the area may be use if they are reviewed and approved by Public Works.

When simulation analyses are to be conducted, obtain traffic speed and/or travel time data during peak periods to aid in calibration of the simulation model.

Section 4.1.4.4. - Project Trip Distribution

Distribution patterns for project trips should be determined considering a number of factors including, but not limited to, the following:

- Characteristics of the street system serving the project site,
- Level of accessibility of routes to and from the proposed project site,
- Locations of employment and commercial centers,
- Locations of residential areas.

The Transportation Impact Analysis shall include map(s) showing project trip distribution percentages (inbound and outbound) at the study intersections, and project driveway(s). This map shall be pre-approved by Public Works and included in the Transportation Impact Analysis Scoping Document.

Section 4.1.4.5. - Traffic Forecasts

The Transportation Impact Analysis shall estimate traffic conditions for the study horizon year selected during the scoping phase and recorded in the executed Scoping Document. The study shall clearly identify the horizon year and annual ambient growth rate used for the study. For development projects constructed in phases over several years, the Transportation Impact Analysis should analyze intermediary milestones before the buildout and completion of the project. The annual ambient growth rate shall be determined by Public Works staff during the scoping process and can be based on the most recent SCAG Regional Transportation Model or other empirical information approved by Public Works.

The Transportation Impact Analysis shall consider trip generation for known development projects within one-half mile (2,640 foot) radius of the farthest outlying study intersections. Consultation with the Department of Regional Planning or other planning agencies will be required to compile a related projects list.

The traffic forecasts for the project access and circulation constraints are determined by adding project-generated trips to future base traffic volumes, including ambient growth and related projects and conducting the operational analysis.

Any programmed and funded transportation system improvements that are expected to be implemented on or before the project buildout year should be identified in the study, in consultation with Public Works. If programmed improvements include a modification to the existing lane configuration at any of the study intersections, then the study should identify these changes and include the revised lane configuration in the LOS calculations for all future scenarios.

Section 4.1.5. – Recommended Action

Potential corrective actions for project access and circulation constraints can include, but are not limited to:

- Installation of a traffic signal or stop signs or electronic warning devices at site access points,
- Redesign and/or relocation of project access points,
- Redesign of the internal access and circulation system,
- Installation of stop-signs and pavement markings internal to the site,
- Restriction or prohibition of turns at site access points,
- Installation of new traffic signal, left-turn signal phasing, or other vehicle flow enhancements at nearby intersections,
- Reconfiguration of study intersections that reduces gridlock and unsafe conflict points.

Any of the above-mentioned actions shall be recommended in accordance with California Manual on Uniform Traffic Control Devices (CA MUTCD) warrants and criteria, or other criteria deemed appropriate by Public Works.

Section 4.2 – Construction Phase Analysis

Section 4.2.1. - Introduction

This category addresses activities associated with project construction and major in-street construction of infrastructure projects.

Section 4.2.2. - Screening Criteria

If the answer is yes to any of the following questions, further analysis will be required to assess if the project could negatively affect existing pedestrian, bicycle, transit, or vehicle circulation:

- For projects that require construction activities to take place within the right-of-way of a highway, would it be necessary to close any temporary lanes, alleys, or streets for more than one day (including day and evening hours, and overnight closures if on a residential street)?
- For projects that require construction activities to take place within the right-of-way of a Local Street, would it be necessary to temporarily close any lanes, alleys, or streets for more than seven days (including day and evening hours, and including overnight closures if on a residential street)?
- Would in-street construction activities result in the loss of any vehicle, bicycle, or pedestrian access, including loss of existing bicycle parking to an existing land use for more than one day, including day and evening hours and overnight closures if access is lost to residential units?
- Would in-street construction activities result in the loss of any ADA access to an existing transit station, stop, or facility (e.g., layover zone)?

- Would in-street construction activities restrict access to any bus stops for more than one day, or necessitate any rerouting of a bus route?

- Would construction of a project interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas?

Please note, that further analysis may determine that a project construction analysis may be required as determined by Public Works.

Section 4.2.3. - Evaluation Criteria

Factors to be considered as part of the construction phase analysis are: location of the project site, functional classification of the adjacent street, availability of alternate routes or additional capacity, temporary loss of bicycle parking, temporary loss of bus stops or rerouting of transit lines, duration of temporary loss of access, affected land uses, and magnitude of the temporary construction activities.

- Temporary transportation constraints:
    - Length of time of temporary street closures or closures of one or more travel lanes,
    - Classification of the street (major arterial, state highway) affected,
    - Existing congestion levels on the affected street segments and intersections,
    - Direct access to freeway on- or off-ramp or other state highway,
    - Presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street,
- Temporary loss of access:
    - Length of time of any loss of pedestrian or bicycle circulation outside the construction zone,
    - Length of time of any loss of vehicular, bicycle, or pedestrian access to a parcel within the construction zone,
    - Length of time of any loss of ADA pedestrian access to a transit station, stop, or facility,
    - Availability of nearby vehicular or pedestrian access within 1/2 mile of the lost access,
- Temporary Loss of Bus Stops or Rerouting of Bus Lines:
    - Days and times during which an existing bus stop would be unavailable or existing service would be interrupted,
    - Availability of a nearby location (within 1/2 mile) to which the bus stop or route can be temporarily relocated,
    - Existence of other bus stops or routes with similar routes/destinations within a 1/2- mile radius of the affected stops or routes,
    - Time of interruption on a weekday, weekend or holiday, and whether the existing bus route typically provides service on those day(s).

Section 4.2.4. – Methodology

Describe the physical setting, including the classification of adjacent streets, on-street parking conditions, including bicycle parking, in the immediate vicinity of the construction project, a description of the land uses potentially affected by construction, and an inventory of existing transit lines, bus stops, transit stations, and transit facilities within a 1/2-mile radius of the construction site. Review proposed construction procedures/plans to determine whether construction activity within the street right-of-way would require any of the following:

- Closure of street, sidewalk, or lanes,
- Blocking existing vehicle, bicycle, or pedestrian access along a street or to parcels fronting the street,
- Modification of access to transit stations, stops, or facilities during service hours,
- Closure or movement of an existing bus stop or rerouting of an existing bus line.
- Creation of transportation hazards.

Compare the results to the evaluation criteria to determine the level of deficiency.

Section 4.2.5. - Recommended Action

Potential corrective conditions for project construction constraints can include but are not limited to:

- Implement traffic management plan, including traffic control plans,
    - Consult with Public Works if temporary closure of a travel lane may be necessary to stage equipment in the public right-of-way,
- Modify construction procedures,
- Limit major road obstructions to off-peak hours,
- Coordinate with emergency service and public transit providers,
- Provide alternative vehicular, bicycle, and/or pedestrian access to affected parcels. Consult with Public Works if temporary closure of a travel lane may be necessary to maintain adequate pedestrian and bicycle access as part of the traffic management plan,
- Coordinate access with adjacent property owners and tenants,
- Coordinate with transit agency regarding maintenance of ADA access to transit stations, stops, and transit facilities (e.g., layover zones),
- Coordinate with transit providers regarding need to temporarily close or relocate bus stops or reroute service.

Section 4.3. – Local Residential Street Cut-Through Analysis

Section 4.3.1. - Introduction

Development and transportation projects may be required to conduct a Local Residential Street Cut-Through Analysis (LRSTM). The objective of this analysis is to determine

potential increases in average daily traffic (ADT) volumes on designated Local Streets near a project that can be classified as cut-through trips generated by the project, and that can adversely affect the character and function of those streets. Cut- through trips are defined as trips along a street classified as a Local Street in the County's General Plan, with residential land-use frontage, as an alternative to trips along a highway defined as Limited Secondary, Secondary, Major, Parkway, or Expressway as designated in the County's General Plan for purposes of accessing a destination that is not within the neighborhood within which the Local Street is located.

Cut-through traffic may result from development projects that add vehicle trips to congested arterial street segments, or by transportation projects that reduce vehicular capacity on highway street segments. To mitigate potential adverse impacts from cut-through traffic (e.g., congestion, access issues, and speeding on Local Streets), traffic calming and diverting features should be considered and, if deemed appropriate by Public Works, implemented to offset any anticipated cut-through traffic.

Section 4.3.2. - Screening Criteria

Section 4.3.2.1. - Development Projects

If the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect residential streets:

- Is the project required to submit a Transportation Impact Analysis?
- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning?

In addition, for development projects to which all of the following circumstances apply, select local residential street segments for analyses during the transportation assessment scoping process:

- The project is located along a current Limited Secondary, Secondary, Major, Parkway, Expressway per the County's General Plan and the study intersections under project build-out conditions (as determined in Section 4.1) operate at a peak hour LOS E or LOS F.

- The project has a potential, based on connectivity to the roadway network, to add automobile traffic to the alternative local residential street route(s) during peak hours,

- An alternative local residential street route (defined as local streets as designated in the County's General Plan passing through a residential neighborhood) provide motorists with a viable alternative route. A viable alternative local residential street route is defined as one which is parallel and reasonably adjacent to the primary route as to make it attractive as an alternative to the primary route. The project applicant in consultation with Public Works shall define which routes are viable

alternative routes, based on, but not limited to, features such as geography and presence of existing traffic control devices, and other criteria as determined by Public Works.

For the purpose of screening for daily vehicle trips, a proposed project's daily vehicle trips should be estimated using the most recent edition of the ITE Trip Generation Manual. If the project proposed land use is not listed in the ITE Trip Generation Manual, please submit a trip generation study to Public Works for review and approval.

Section 4.3.3. - Methodology

Section 4.3.3.1. - Development Projects

Future peak hour "without project" traffic conditions for the study intersections in the vicinity of the project identified in Section 4.1 should be developed using the intersection analysis methodologies, including an ambient growth rate to the study horizon year and adding traffic generated by related projects. Future "without project" daily traffic volumes for the local residential streets included in the analysis should be developed by collecting daily traffic counts for the subject streets, adding an ambient growth rate to the study horizon year, and adding traffic generated by related projects, also using methodologies described in Section 4.1.

The methodologies described in Section 4.1 should be applied to estimate the daily and peak hour trip generation of the project and distribute the project trips to the street system to forecast the amount of project traffic that may be added to nearby congested highways. If the nearby study intersections are projected to operate at LOS E or F, the analysis shall include the following:

- Estimate the amount of peak hour project traffic that may instead shift away from the congested facilities to local residential streets,
- Estimate the amount of daily project traffic that may shift to local residential streets, considering that the street system is less congested during non-peak hours than during peak hours,

Section 4.3.4. - Recommended Action

If the analysis indicated the project may result in substantial diversion, the project applicant shall conduct public outreach and develop a Local Residential Street Cut-Through (LRSTM) Plan. The project applicant shall consult with Public Works, and neighborhood stakeholders, and any other stakeholders to collaboratively prepare the LRSTM Plan. Coordination with the appropriate Supervisorial District office may be necessary to designate the stakeholders that should facilitate the public outreach.

The project applicant shall submit a separate scoping document for the LRSTM Plan to Public Works for review and approval as part of the Transportation Impact Analysis which shall include the following items:

- Identify key milestones,
- Summarize the proposed process in developing a LRSTM plan for the local residential street segments of concern,
- Define a public outreach and consensus- building process,
- Propose selection and approval criteria for any evaluated traffic calming measures,
- Provide a funding plan which will include potential sources of funding.

The project applicant shall submit the LRSTM Plan with a cost estimate for the improvements, and a funding plan to Public Works for review and approval, prior to issuance of building permit. The LRSTM Plan shall be prepared in conformance with the guidelines established by Public Works and should contain, at a minimum, the following elements:

- Description of existing facilities and neighborhood traffic conditions,
- Description of proposed neighborhood traffic controls, including sketches of specific street modifications,
- Analysis of any change in existing or future traffic patterns as a result of implementation of the plan,
- Implementation and monitoring program.

The project applicant shall lead public outreach in consultation with Public Works and the affected Supervisorial District office.

The development of the LRSTM plan shall include the analysis of any relevant traffic data, roadway characteristics, and conditions of the local residential street segments of concern.

The LRSTM Plan should prioritize implementing effective traffic calming subject to Public Works guidelines and appropriate warrants, which may include, but is not limited to:

- Traffic circles,
- Speed humps,
- Roadway narrowing effects (raised medians, traffic chokers, etc.),
- Landscaping features,
- Roadway striping changes,
- Traffic control devices,
- Restrictive measures such as turn restrictions, physical barriers, diverters, signal metering, etc.,
    - Restrictive measures should be carefully evaluated to ensure that they do not lead to the diversion of a significant amount of traffic from one local residential street to another local residential street.

For these above-mentioned items, the project applicant shall also be responsible for conducting the engineering evaluation of the potential measures to determine the feasibility regarding drainage, constructability, street design and other pertinent elements.

Section 4.4 - Additional Site Access Analysis

Section 4.4.1 - Introduction

Project access and circulation constraints related to the site plan, and access to and from the project site may be analyzed separately from the Transportation Impact Analysis.

Section 4.4.2. - Screening Criteria

If the answer is yes to any of the following question, additional site access studies may be required to assess the projects site access requirements:

- Would the project provide a driveway on a rural cross section two-lane highway per the County's General Plan?
- Does the project's land use require vehicles to queue on-site?
- Does the project's land use include intermittent events which may exceed the supply of on-site parking?

Section 4.4.3. - Evaluation and Methodology

The project applicant shall prepare and submit a Scoping Document to Public Works through the EPIC-LA portal. The Scoping Document describes the assumptions and parameters that shall be included in the Additional Site Access Studies including any analysis requirements. The additional site access studies required based on the screening criteria from Section 4.4.2. are listed below

- Public Works may evaluate the site access requirements for a driveway on a rural two-lane highway by requesting a Traffic Access Management Study to be conducted,

- Public Works may evaluate the site access requirements for vehicular queuing by requesting a Traffic Queueing Analysis to be conducted,

- Public Works may evaluate the site access requirements for land use with intermittent events that will exceed the supply of on-site parking by requesting a Traffic Event Management Study to be conducted.

Section 4.4.4. - Recommended Actions

Potential corrective actions for project access and circulation will be addressed in the additional site access studies and documented in a Traffic Study Confirmation of Findings Letter from Public Works.

Section 5. - Study Format and Required Content

Each Transportation Impact Analysis should follow a consistent format and organization and include all of the figures, maps, and information presented in this section. The level of detail required for each project's Transportation Impact Analysis should be determined during the scoping process and identified in the Scoping Document.

Section 5.1. - Project Description

A Transportation Impact Analysis shall include a detailed project description at the beginning of the document. The project description should include the following information:

- Project case number, as assigned by the Department of Regional Planning (if applicable Tract Map, Parcel Map, Conditional Use Permit, RPPL),
- Location of the project site, address, Assessor's Block and Lot number(s), cross streets, and Supervisorial District, and Unincorporated Community,
- Existing and proposed total square footage for each type of land use and/or the number of residential units, including the net changes for each type of use,
- Transportation demand management measures proposed as part of the project.

This section shall also include the following maps and figures:

- Project site plan showing driveway locations, loading/unloading area,
- Site map showing study intersections and distance of the project driveway(s) from the adjacent intersections. Include location and identification of all major buildings, driveways, parking areas, and loading docks of the project.

Section 5.2. - Site Conditions

The information on the location and surroundings of the project shall be discussed following the project description, as a different section of the Transportation Impact Analysis. This section will provide a brief, but comprehensive description of the existing transportation infrastructure and conditions in the vicinity of the project. The specific boundaries of the Transportation Impact Analysis area, for both the location and surroundings of the project, should be confirmed during the initial discussion and scoping process with Public Works.

The project context section should include the following information, with the level of detail to be directed by Public Works during the scoping process:

- Street designations, classifications, pedestrian and bicycle facilities existing and planned,

- Description of the study area streets, including the number and width of lanes, direction of flow, on-street parking information, and other significant street information,
- Location of, distance from, and routings to and from on-ramps and off-ramps of regional highways and freeways,
- Description of public transit routes operating on the streets within the Transportation Impact Analysis area, including hours of service, peak period headways, type of vehicle (bus, light rail vehicle, etc.), and service provider.

This section of a Transportation Impact Analysis will also include the following maps and figures:

- Area map showing location of the project and related projects,
- Street maps of the study area indicating street names, classifications, and traffic control,
- Map or diagram of potential pedestrian destinations within 1,320 feet of the edge of a project site,
- Table indicating location, size, name, description, and trip generation of each related project.

Section 5.3. - Analysis, Discussion, and Results

Following the descriptions of the project and its surroundings, the Transportation Impact Analysis shall contain sections that detail the analyses conducted, summarize the results, and identify any significant transportation impacts and mitigation measures for each of the CEQA issue areas identified in Section 3, and any operational deficiencies and corrective actions for the additional areas of analysis identified in Section 4.

The Transportation Impact Analysis should include calculations, data, and descriptions of any transportation analyses conducted to determine project impacts on the transportation system. The Transportation Impact Analysis should describe the results of all project scenarios and describe all project impacts that have been identified.

Section 5.4. – Mitigation Measures and Recommended Actions

Section 5.4.1. - Introduction

When a project is expected to result in significant transportation impacts, as defined in Section 3, or transportation deficiencies, as defined in Section 4, the project's consultant should meet with Public Works to discuss potential transportation mitigation options and corrective actions before submitting a Transportation Impact Analysis. A variety of transportation mitigation measures should be considered to mitigate a project's significant transportation impact to a level of insignificance.

All proposed mitigation measures shall be described in the Transportation Impact Analysis and to the satisfaction of Public Works.

Section 5.4.2. - Transportation Demand Management Measures

Mitigation measures shall minimize vehicle miles traveled through Transportation Demand Management (TDM) strategies. A preliminary draft performance based TDM Program shall be included in the Transportation Impact Analysis for any project seeking trip generation amendments supported by TDM, to the satisfaction of Public Works. The applicant may be allowed to reduce the total project trips and VMT by an amount determined to be commensurate with the measures proposed in the TDM Program.

Section 5.4.3. - Physical Infrastructure Improvements

Construction of physical infrastructure improvements shall encourage walking and biking and the use of transit. Conceptual Traffic Signal Plans and Conceptual Signing and Striping Plans should be prepared for any proposed physical infrastructure improvements and should be submitted to Public Works for review and approval as part of the Transportation Impact Analysis.

Section 5.4.4. - Mitigation Monitoring and Reporting Program in CEQA Documents

Each mitigation measure in the project's mitigation monitoring program should be described separately in the CEQA Document. The following details are required for each measure:

- Identification of the agency responsible for monitoring the measure and coordinating all participants,
- Qualifications, if any, of the necessary monitor(s),
- Monitoring schedule (i.e., the phase of the project, frequency, and completion/termination) – this should be stated for physical mitigation measures required during construction as well as those that are for the operation/life of the project (e.g., TDM program),
- Funding required and sources of funding for monitoring activities by both project and County personnel (especially for long-term monitoring activities).

Attachment D

Approved Scope of Work

MAT Engineering, Inc.
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November 15, 2022

Ms. Starla Barker
DE NOVO PLANNING GROUP
180 East Main Street #108
Tustin, CA 92780

Subject: **Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening Scope of Work, City of South Gate, California**

Dear Starla,

MAT Engineering, Inc. is pleased to submit this proposed scoping agreement for preparation of a trip generation study and VMT screening for the proposed Long Beach Boulevard multifamily residential project in the City of South Gate.

A. Project Description & Location

The project site is located on the southwest corner of the Long Beach Boulevard / Willow Place intersection in the City of South Gate.

Existing uses on the project site consist of an auto repair/tire shop with an area of approximately 650 square feet.

The proposed project consists of removal of the existing auto repair/tire shop with development of 14 dwelling units of three-story multi-family residential use.

Access for the proposed project is planned via two driveways; one driveway on Willow place and one right-in/right-out driveway on Long Beach Boulevard.

Exhibit A shows the project location. Exhibit B shows the proposed site plan.

B. Project Trip Generation

Trip generation represents the amount of trips attracted and produced by a land use.

The trip generation for the existing use and the proposed project is based upon the specific land uses that have been planned for this project and has been determined utilizing the Institute of Transportation Engineers (ITE) trip generation rates which is an industry standard for calculating trips associated with land uses.

Table 1 shows the trip ITE trip generation rates for the existing and also the proposed uses based on the ITE.

Table 1
ITE Trip Generation Rates - subject to verification.

Land Use	ITE Code	Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Auto Repair/Care	942	TSF	1.49	0.76	2.25	1.49	1.62	3.11	31.1 *
Multi-family Residential (Low-Rise)	220	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74

Notes:
Source: 2021 ITE 11th Edition Trip Generation Manual; - provide cut sheets for ITE codes 942 and 220 in the report.
TSF = Thousand Square Feet; DU = Dwelling Units
* For auto repair use, since ITE does not have daily rates, the daily rate is derived by multiplying the PM peak hour rate by a factor of 10.0

Utilizing the ITE trip generation rates from Table 1, Table 2 shows a summary of the net trip generation for the proposed project after accounting for the existing land use which will be removed.

Table 2
Project Trip Generation - subject to verification

Land Use	Quantity	Units	ITE Code	Peak Hour						Daily
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Proposed Use (14 Dwelling Units of Low-Rise Multifamily Residential Units)	14	DU	220	1	5	6	4	3	7	94
Existing Use (650 Square Feet of Auto Repair Use)	0.650	TSF	942	-1	0	-1	-1	-1	-2	-20
NET Total				**0**	**5**	**5**	**3**	**2**	**5**	**74**

Source::

Institute of Transportation Engineers (ITE) 2021 Trip Generation Manual (11th Edition) Source: 2021 ITE 11th Edition Trip Generation Manual;

As shown in Table 2, based on the ITE trip generation rates:

- Without taking any credit for the existing use, the proposed project is forecast to generate approximately 94 daily trips which include approximately 6 AM peak hour trips and approximately 7 PM peak hour trips.

- The existing use generates approximately 20 daily trips which include approximately 1 AM peak hour trips and approximately 2 PM peak hour trips.

- After taking credit for the existing use, the proposed project is forecast to generate approximately 74 NET additional daily trips which include approximately 5 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

C. Trip Generation Evaluation & Access Analysis

As shown in Table 2, after taking credit for the existing use, the proposed project is forecast to generate approximately 74 NET additional daily trips which include approximately 5 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

Based on industry standards and the Los Angeles County traffic study requirements, typically, a full traffic study is required when a project generates more than 50 peak hour trips or 110 daily trips. Since the proposed project is expected to generate a low number of trips, MAT Engineering, Inc. proposes preparation of a trip generation memorandum for the project instead of a full traffic study.

The trip generation memorandum will disclose the project's trip generation based on the ITE trip generation rates and draw a conclusion that based on the low number of trips, the proposed project is expected to not result in an adverse level of service impact and operations on the surrounding roadway system.

D. Proposed Scope of Vehicle Miles Traveled (VMT) Analysis

In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Effective July 1, 2020, the previous CEQA metric of LOS, typically measured in terms of automobile delay, roadway capacity and congestion, generally will no longer constitute a significant environmental impact.

Based on County of Los Angeles traffic study requirements, projects generating less than 110 daily trips could be screened out from requiring a full VMT analysis. - Attach copy in the report

Hence, the proposed project is expected to screen out for requiring a full VMT analysis.

MAT Engineering, Inc., will prepare a VMT screening memo for the proposed project based on this screening criteria.

MAT Engineering Inc. appreciates the opportunity to provide this scope of work for review. If you have any questions, concerns, or comments, please contact us at 949-344-1828 or at@matengineering.com.

Respectfully submitted,

MAT ENGINEERING, INC.

Alex Tabrizi, PE, TE

President

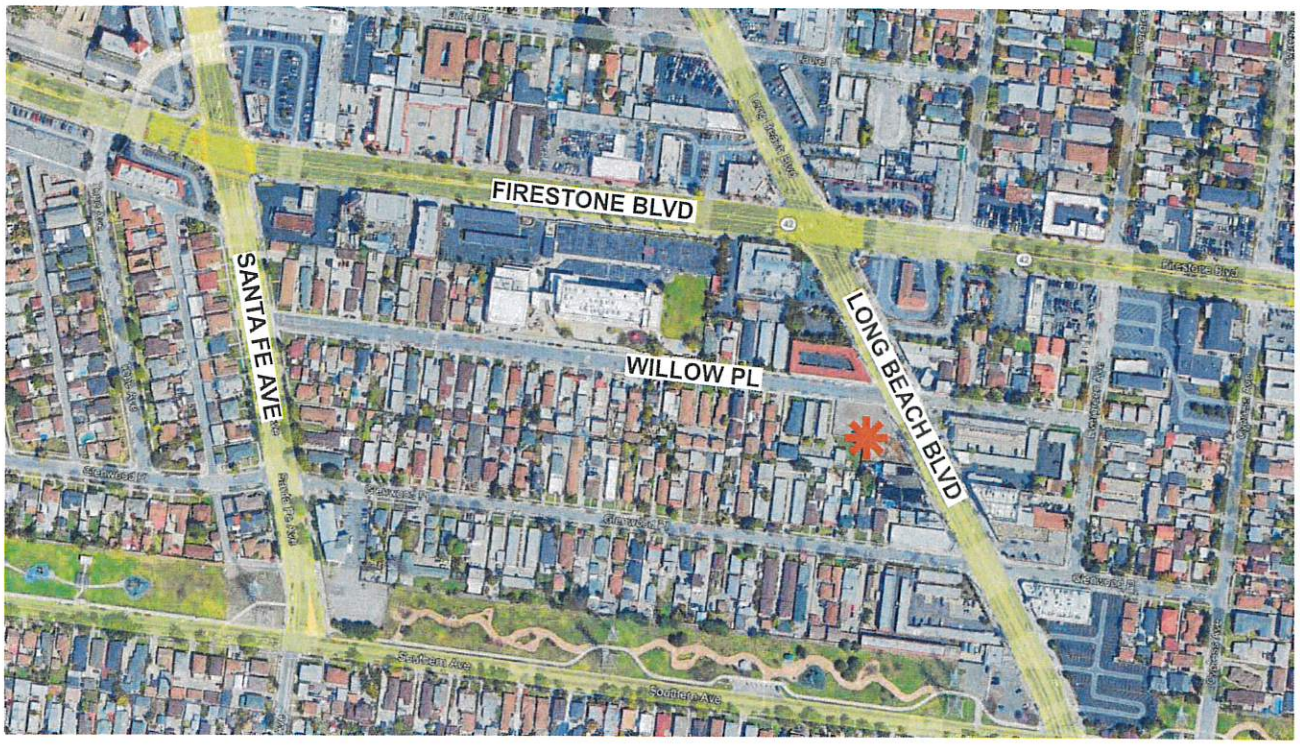
Approved by:

11-15-2022

Date

Attachment A

Exhibits



Legend:

Site Location

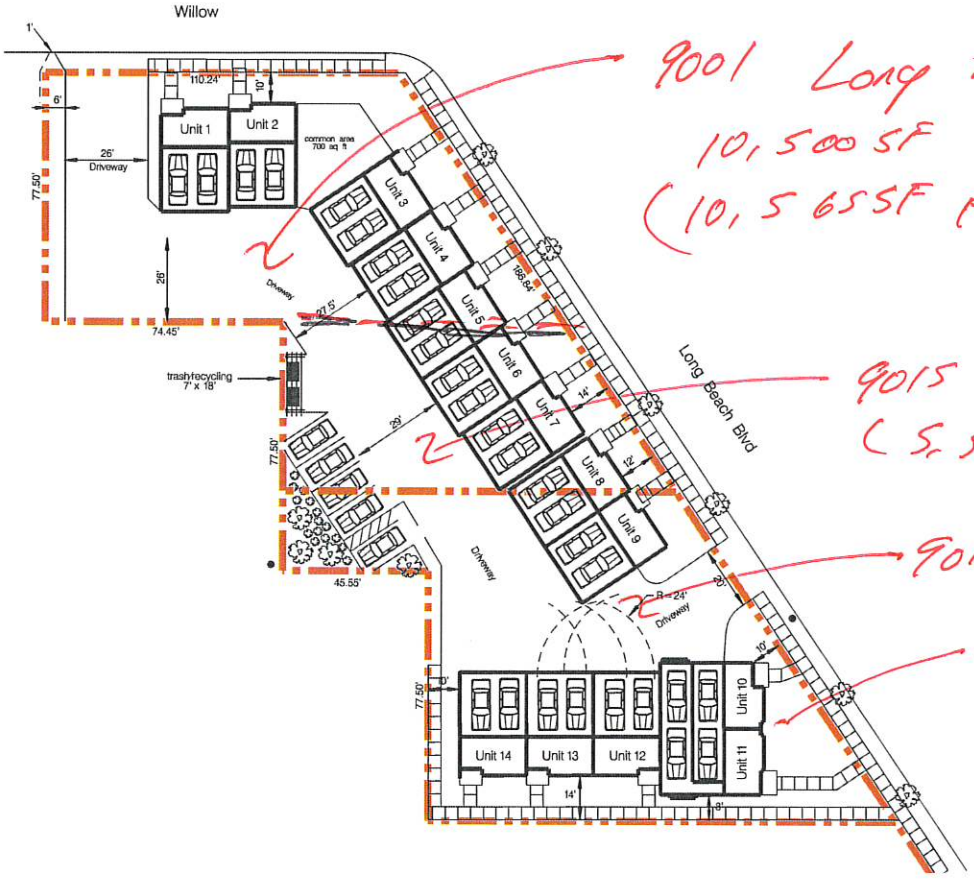
Not to Scale

ENGINEERING, INC.

Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Screening, City of South Gate, California / 0006-2022-13 NOV/2022

Project Location

Exhibit A



Not to Scale

ENGINEERING, INC.

Provide a scale plan 1" = 20' or 40'
size of site plan shall be 24 x 36.

Site Plan

Exhibit B

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H

Statutory Checklist Reference Documents

- FEMA FIRM Map
- State Coastal Management Plan
- CDFW CNNDB Map and List
- SCAG Data/Map Report for City of South Gate
- Important Farmland City of South Gate
- Sole Source Aquifer Map
- National Wild and Scenic Rivers (NWSRS) Map
- Explosive and Flammable Hazards

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H
Statutory Checklist Reference Documents

FEMA FIRM Map

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole–foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC–3, #9202
1315 East–West Highway
Silver Spring, MD 20910–3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713–3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later and from National Geospatial Intelligence Agency imagery produced at a scale of 1:4,000 from photography dated 2003 or later.

This map reflects more detailed and up–to–date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

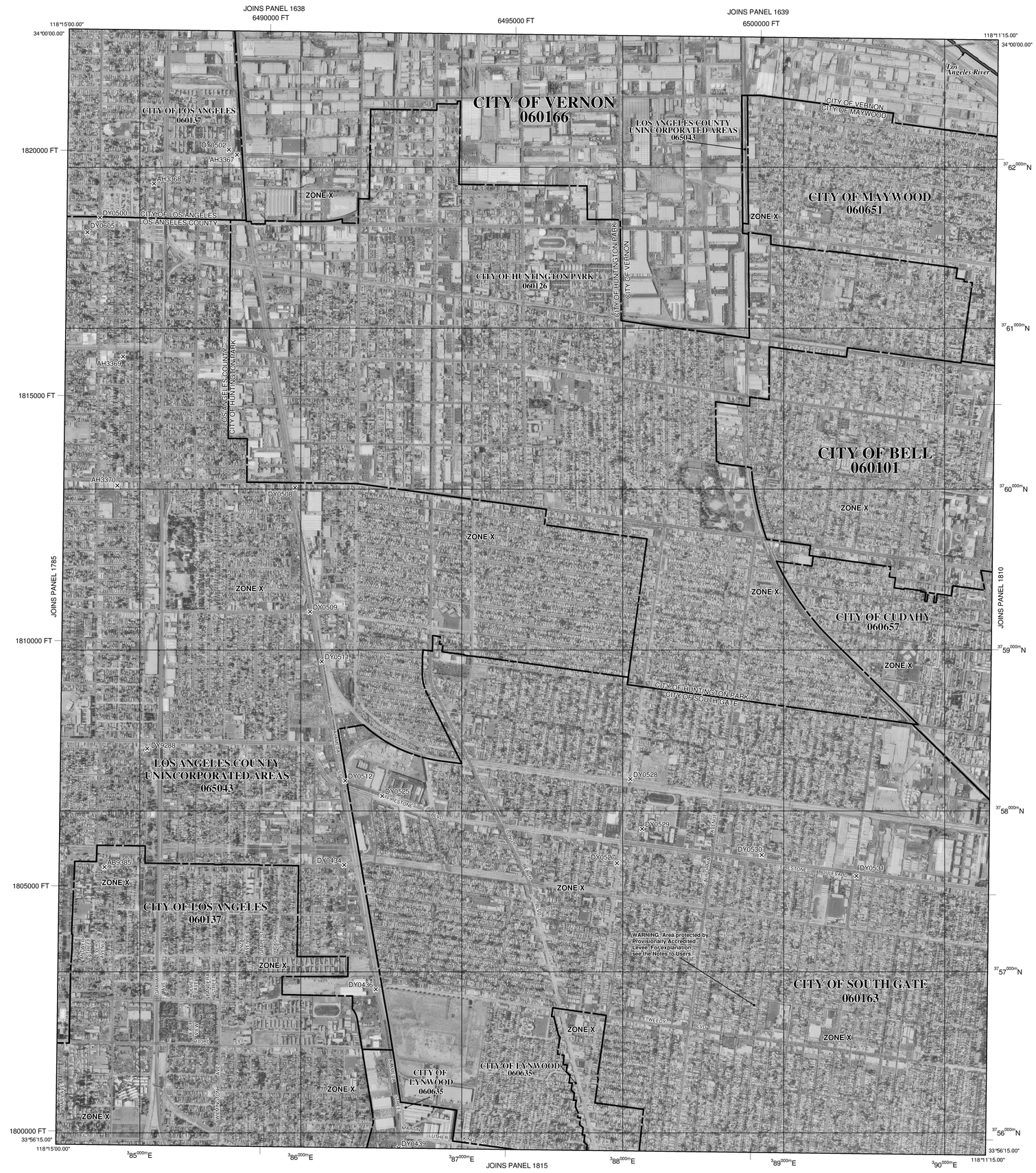
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de–annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1–800–358–9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1–800–358–9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1–877–FEMA MAP** (1–877–336–2627) or visit the FEMA website at http://www.fema.gov/.

WARNING: This levee, dike, or other structure has been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by October 16, 2009. Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000mN — 1000-meter Universal Transverse Mercator grid values, zone 11
- 6000000 FT — 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1–800–638–6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1805F

FIRM

FLOOD INSURANCE RATE MAP

LOS ANGELES COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 1805 OF 2350
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LOS ANGELES COUNTY	065043	1805	F
BELL, CITY OF	060101	1805	F
CUDAHY, CITY OF	060657	1805	F
HUNTINGTON PARK, CITY OF	060126	1805	F
LOS ANGELES, CITY OF	060137	1805	F
LYNWOOD, CITY OF	060635	1805	F
MAYWOOD, CITY OF	060651	1805	F
SOUTH GATE, CITY OF	060163	1805	F
VERNON, CITY OF	060166	1805	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06037C1805F

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H
Statutory Checklist Reference Documents

State Coastal Management Plan

CALIFORNIA COASTAL COMMISSION
455 MARKET STREET, SUITE 300
SAN FRANCISCO, CA 94105
VOICE & TDD (415) 904- 5200
FAX (415) 904- 5400
WWW. COASTAL. CA. GOV

California Coastal Commission
Coastal Management Program
Final 309 Assessment and Strategy
2021 to 2025 Enhancement Cycle



Huntington Beach, CA

Prepared pursuant to the provisions of Section 309 of the federal Coastal Zone Management Act for the Office for Coastal Management, National Ocean Service, National Oceanic and Atmospheric Administration and with financial assistance from grant award NA19NOS4190073.

By

California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

January 2021

Table of Contents

Introduction 3
Summary of Recent Section 309 Achievements 4
Assessment 10
Phase I Assessment 10
Wetlands 10
Coastal Hazards 19
Public Access 31
Marine Debris 40
Cumulative and Secondary Impacts 46
Special Area Management Planning 58
Ocean and Great Lakes Resources 65
Energy and Government Facility Siting 82
Aquaculture 90
Phase II Assessment 94
Coastal Hazards 94
Public Access 103
Marine Debris 112
Special Area Management Planning 119
Strategy 130
Strategy 1. Building Resilient and Sustainable Communities through Planning and Permitting 130
Strategy 2. Public Access for All with Sea Level Rise 139
Strategy 3. Marine Debris Reduction Measures Program 145
Summary of Stakeholder and Public Comment 151
Stakeholder Input 151
Public Comment on Draft 309 Assessment and Strategy 152
Response to Public Comments Received 153
Appendix A – Public Comment Letters 158

Introduction

Overview of the Section 309 Program

Section 309 of the Coastal Zone Management Act (CZMA), as amended in 1990 and 1996, establishes a voluntary coastal zone enhancement grant program to encourage Coastal Management Programs (CMPs) to develop innovative approaches to improving the following nine enhancement areas: (1) wetlands, (2) coastal hazards, (3) public access, (4) marine debris, (5) cumulative and secondary impacts, (6) special area management planning, (7) ocean/great lakes resources, (8) energy and government facility siting, and (9) aquaculture. Under the Section 309 program, the Secretary of Commerce is authorized to make awards to states and territories to develop and submit for federal approval of program changes that support one or more enhancement area objectives.

This document considers the portions of the California CMP administered by California Coastal Commission (Coastal Commission or the Commission) and applies only to the Pacific coast elements. The San Francisco Bay Conservation and Development Commission (BCDC), which administers CCMP activities within San Francisco Bay, has its own Assessment and Strategy document. The State Coastal Conservancy (Conservancy) does not currently participate in the Section 309 program; however, relevant work completed by the Conservancy during the assessment period is included to the extent possible in this update.

Purpose of the Assessment and Strategy

To be eligible for Section 309 funding, CMPs must successfully complete an Assessment and Strategy for review and approval by the National Oceanic and Atmospheric Administration's (NOAA) Office for Coastal Management (OCM). The Assessment considers the extent to which problems and opportunities exist with regards to the enhancement area objectives and the effectiveness of current efforts to address those problems.

The Assessment results provide the basis for the CMP and OCM to cooperatively determine priority needs for program improvement. The Strategy is a comprehensive, multi-year statement that identifies program changes and implementation activities needed to address enhancement area objectives identified as high priority in the Assessment. The Strategy is based on priority needs and information gaps identified in the Assessment, informed by the agency's Strategic Plan, and covers proposed 309 activities for the 5-year period from fiscal year 2021 to fiscal year 2025.

The 309 Enhancement Grants Program is an important asset to coastal management in California, providing crucial funding for analyzing problems and developing solutions to emerging coastal management issues that result in a program change. Completing this 309 Assessment and Strategy process allowed the Commission to reflect upon its 309 accomplishments, to focus in on the state's coastal management needs identified in

development of 2021-2025 Strategic Plan and create an updated 309 Strategy to support Commission efforts to address those needs.

Developing the Assessment and Strategy and Public Review Process

The Assessment was developed using OCM's June 2019 guidance document and template provided for reporting on the nine enhancement areas. For the initial assessment, Commission staff used the templates and information sources as directed in NOAA's guidance in addition to known state information sources that provide more context and detail for coastal California. For more detailed assessment in the priority enhancement areas, staff consulted additional information sources such as measures developed under the Coastal Zone Management Act Performance Measurement System (CZMPMS), additional research of past Commission actions, interviews with various district and other staff members on activities and outcomes, information from partner agencies and public comments from stakeholder groups and others.

To develop the 309 Strategy, the Commission used the high priority enhancement areas identified through the Assessment and evaluated these areas as they related to on-going high priority needs of the agency. Development of the 309 Assessment and Strategy coincided with the update of the Commission's Strategic Plan for 2021-2025; as such, Commission staff was able to leverage the public input during the Strategic Plan process for use in developing the 309 Strategy.

Summary of Recent Section 309 Achievements

Below is a summary of the agency's 309 program changes and major achievements since 2015 that were accomplished using the Commission's Section 309 funding. The changes and achievements are classified by enhancement area and include efforts identified as program enhancement strategies in the previous assessment, the 2016 to 2020 Assessment and Strategy.

Enhancement Area: Coastal Hazards

Coastal Commission Sea Level Rise Policy Guidance

On August 2015, the Coastal Commission unanimously adopted a Science Update to the 2015 CCC Sea Level Rise Policy Guidance. The Guidance provides an overview of the best available science on sea level rise for California and a recommended methodology for addressing sea level rise in Coastal Commission planning and regulatory actions. In November 2018, the Commission then unanimously approved the science update to the 2015 guidance to reflect the best available science on sea level rise projects and potential for significant contributions to West Coast sea levels from ice-sheet melting.

<u>Related Accomplishments</u>

- Commission staff developed and carried out an outreach and education strategy to

support implementation and use of the adopted sea level rise guidance.
- Vulnerability Assessment Checklist for Commission staff and local governments.
- The Commission worked on an interagency team with a number of state and federal agencies (e.g. NOAA, USGS, FEMA, OES, OPR, OPC, and SCC). The team produced the Coastal Plan Alignment Compass in 2019 to support California's coastal communities as they develop local plans such as Local Hazard Mitigation Plans, Adaptation Plans, General Plans, and LCPs, to prepare for sea level rise and coastal flooding.

Memorandum of Agreement between Coastal Commission and State Lands Commission. The MOU formalizes interagency coordination and collaboration between the two agencies. It also supports the ongoing 309 Strategy on public trust between the California Coastal Commission and the State Lands Commission to identify ways the agencies can improve coordination, understanding and management of the impacts to the public trust that could occur, considering sea level rise.

CCC Draft Residential Adaptation Guidance

The Draft Guidance was first released in 2017 and presented to the Commission and revised in 2018. It helped to bring attention to the potential consequences of climate change and sea level rise and to identify general and specific strategies and actions that local governments might consider for LCPs. Briefings in 2019 and 2020 supported opportunities for the Commission and the public to discuss sea level rise adaptation topics in advance of staff releasing a revised Residential Adaptation Guidance document for Commission consideration and adoption.

Related Accomplishments

- As part of our outreach and educational efforts related to sea level rise adaptation, the Commission hosted informational briefings on sea level rise vulnerabilities and adaptation issues raised in the Draft Residential Guidance at a number of Commission hearings (August 2019, September 2019, October 2019, November 2019, February 2020, March 2020).

Enhancement Area: Public Access

Improved Valuation of Impacts to Recreation, Public Access, and Beach Ecology from Shoreline Armoring

The 2015 Administrative Draft of the Report on Improved Valuation of Impacts to Recreation, Public Access, and Beach Ecology from Shoreline Armoring was prepared with financial assistance from NOAA's FY 2012 Project of Special Merit (NA12NOS4190026).[1] Commission staff worked with beach ecologists and economic valuation academics to describe and evaluate beach resources and to explore beach valuation methods that might better account for the impacts of permitted shoreline armoring. The report lays out mitigation strategies for shoreline armoring impacts on beach ecology and recreation and access. While not yet approved as guidance by the Coastal Commission, it has supported ongoing efforts to more fully mitigate

[1] https://documents.coastal.ca.gov/assets/ecology/BeachValuationNOAADeliverableSubmitted_092815.pdf

the adverse impacts of shoreline armoring to beach recreation, access, and ecology where those impacts are not feasibly avoided. This effort informed the 2018 Certification of the City of Solana Beach Local Coastal Program (Amendment No. LCP 6-SOL-16-0020-1 Public Recreation Fee). It also contributed to collaborative work with State Lands Commission in the previous Assessment's 309 Strategy to protect public trust resources

New Public Accessways

Offers to dedicate (OTD) permanently protect for public access purposes and will add to the body of similarly protected lands. Each represents the opportunity for additional new accessways to and along the coast, as well as inland trail segments, once they are built and open for operation. Therefore, each site is a step in increasing the public's ability to get to and use our public lands.

Related Accomplishments

- 80 Public Access OTDs Accepted October 2014 through 2019.
- **Report on Status of Vertical Accessways in Northern California Acquired by California Coastal Commission Actions 1973 to 2015**
  https://documents.coastal.ca.gov/reports/2016/10/w6c-10-2016.pdf In 2016 the Commission completed analysis of vertical accessways statewide, indicating a total of 196 vertical accessways acquired through Commission permit actions. At the time of the report, 61 percent (120 sites) were open to the public.

Guidance to Ensure Implementation of Public Access Requirements

The purpose of the procedural guidance for Best Management Practices (BMP) is to provide detailed instructions to ensure that public access conditions, when imposed by local governments through approved coastal development permits, are implemented. This guidance identifies steps for local government planners to follow on tracking public access conditions, provisions in legal documents, and ensuring that Offers to Dedicate (OTD) Public Access Easements are accepted in a timely manner.

Accomplishments

- Procedural Guidance for Best Management Practices to Ensure Implementation of Public Access Requirements completed May 26, 2017.

Enhancement Area: Cumulative and Secondary Impacts

Updated Compendium of Coastal Development Permit Sample Special Conditions

This Compendium provides sample condition language for consideration in coastal development permit recommendations, updating the 1999 and 2002 versions. It does not cover every topical area that might be presented in a development review, but it does provide generic language for many of the primary issues that a coastal analyst may need to address in their day to day work. This includes sample conditions for final plan requirements, other

agency approvals, and the generic deed restriction. It also covers aspects of public access, coastal hazards management, including shoreline protection structures, and a variety of biological resource protection concerns, among others.

Related Accomplishments

- Compendium of Coastal Development Permit Sample Special Conditions (Compendium), revised Dec. 20, 2016.
- The June 2016 Administrative Guide of Use of Compendium of Coastal Development Permit Sample Special Conditions contains procedures that staff will follow to use the compendium in the regulatory program and to maintain them over time.

Enhancement Area: Special Area Management Planning

LCP Guidance, Training Modules and Digital LCP Library

Significant guidance and assistance were provided in order to enhance the LCP Program and to ensure LCP updates addressed emerging issues and new information. Many of these policy guidance documents are highlighted in achievements under Coastal Hazards; however, many more informational memoranda and guidance documents have been completed since the last assessment using 309 funds.

Accomplishments

- The LCP Update Guide is intended to support LCP update efforts by providing information and guidance for addressing emerging issues in the update of a certified LCP.
  - The LCP Update Guide Part I - Section 1. Public Access released on April 4, 2017
  - LCP Update Guide – Part I - Section 3. Water Quality, 3/29/17
  - LCP Update Guide – Part I - Section 8. Coastal Hazards, 2/14/2017 (Note that coastal hazards guidance is also described under Coastal Hazards)
- Memos to help local governments understand how to carry out their Coastal Act obligations while also implementing state requirements regarding the regulation of accessory dwelling units (“ADUs”) and junior accessory dwelling units (“JADUs”).
- Short-term rental guidance and updated Commission action chart that identifies the general regulatory approach and key regulatory parameters of relevant Local Coastal Program Amendments.
- Cannabis guidance for local governments to inform and assist coastal jurisdictions in developing ordinances to address cannabis cultivation and other cannabis-related development activities.
- Agricultural guidance documents prepare for local governments and posted on the Commissions website including information related to supplemental land uses, managing public access in agricultural areas, agriculture as a means of carbon storage, and a detailed Informational Guide for the Permitting of Agricultural Development (2017).

- Completion of a LCP training framework to provide a work plan for training development and a completion of number of training modules for Commission staff, including the history and importance of the Coastal Management Program, one on Coastal Act requirements, and one for protocols for local governments to record legal document related public access and open space.
- Building out of the Digital LCP Library, including the addition of 4 certified LCPs in fully digital format.

New LCP Certifications and Updates

The products of the 309 enhancement grant activities provide information that supports development of new or updated LCPs. Since the last assessment was completed, several LCP updates have resulted in significant changes to the emphasis placed on climate change and sea level rise policy in California. A few LCP planning actions also relate to issues such as affordable housing, cannabis regulation, and short-term rentals informed by policy guidance.

Since 2015, approximately 13 jurisdictions (through 23 amendments) have initiated or completed significant partial or comprehensive updates to their LCPs. These updated plans revise and incorporate new information and updated policies and implementing measures, many that address the enhancement priority areas. "Comprehensive Update" refers to modifications that constitute an update of the majority of the City/County's land use regulatory policies and programs. Major LCP accomplishments are noted below.

<u>Accomplishments</u>

- During the reporting period, the City of Newport Beach (1/13/17) and City of Pacific Grove (3/11/20) achieved new certified LCPs. More cities and counties have either LUP or IP updates initiated, submitted, or approved (see Assessment Section for Special Area Management Plans).
- Comprehensive update of the Ocean Beach Community Plan (LUP), replacing the previous equivalent LUP in whole including new policies issues such as, but not limited to, lower cost visitor serving accommodations, sea level rise, ESHA determinations, water quality, and shoreline development standards to address coastal hazards issues. (1/14/16)
- City of San Diego IP amendment to address a key coastal hazards issue related to development standards and tracking criteria for nonconforming structures along beaches and bluffs (11/08/16)
- Comprehensive update of the LUP (Mendocino Town Plan) and IP (Town Zoning Code) for the Town of Mendocino Segment of the Mendocino County LCP, including visitor serving facilities, land use designations, permitted and conditionally-permitted use types, water quality provisions, and policy formatting in the LUP (11/8/17).
- Amended the San Francisco LUP to add a coastal hazards planning area, referred to as the Western Shoreline Area Plan, which adds new policies to address erosion, flooding, and sea level rise along the Ocean Beach shoreline (5/10/18).
- Comprehensive update of the City of San Clemente LUP, replacing previous LUP in whole, including new policies on current and emerging issues such as, but not limited to,

the alignment of the California Coastal Trail, pedestrian and bicycle trail connectivity, alternative parking strategies, protection of existing and provision of affordable overnight accommodations, and policies addressing potential impacts due to sea level rise (8/10/18).

- LUP and IP amendment to add a new specific plan, Windward Specific Plan SP-16, to the City of Huntington Beach LCP (12/12/18).
- Comprehensive update of the City of Santa Barbara LUP, replacing previous LUP in whole, notably including policies regarding land use and development, public works and energy facilities, public access, visitor-serving and recreational facilities, biological resources, water quality, cultural resources, and some initial policies related to coastal hazards (8/9/19).

Assessment

Phase I Assessment

Wetlands

Section 309 Enhancement Objective: Protection, restoration, or enhancement of the existing coastal wetlands base, or creation of new coastal wetlands. §309(a)(1)

Note: For the purposes of the Wetlands Assessment, wetlands are "those areas that are inundated or saturated at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." [33 CFR 328.3(b)]. See also pg. 174 of the CZMA Performance Measurement Guidance[2] for a more in-depth discussion of what should be considered a wetland.

PHASE I (HIGH-LEVEL) ASSESSMENT:

Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. Using provided reports from NOAA's Land Cover Atlas,[3] please indicate the extent, status, and trends of wetlands in the state's coastal counties. You can provide additional or alternative information or use graphs or other visuals to help illustrate or replace the table entirely if better data are available.

   Current state of wetlands in 2016 (acres): 242,953 (from 2016 NLCD)[4]

[2] https://coast.noaa.gov/czm/media/czmapmsguide2018.pdf

[3] https://coast.noaa.gov/digitalcoast/tools/lca.html. Note that the 2016 data will not be available for all states until later Summer 2019. NOAA OCM will be providing summary reports compiling each state's coastal county data. The reports will be available after all of the 2016 data is available.

[4] National Land Cover Database (NLCD) land cover data is based on the analysis of Landsat data. Using automated scripts, Landsat scenes were selected for seven target years: 2001, 2003, 2006, 2008, 2011, 2013, and 2016. Other input datasets include 3D Elevation Program (3DEP) digital elevation data; Coastal Change Analysis Program (C-CAP) land cover; Cropland Data Layer (CDL); National Wetlands Inventory (NWI); Soil Survey Geographic (SSURGO) Database; and State Soil Geographic (STATSGO2) Database. SSURGO (with STATSGO2 to fill in gaps) was the basis for a hydric soils data layer used in training data assembly. NLCD 2016 is produced by modeling land cover change over seven intervals between 2001 and 2016, with consistent change trajectories built into the process. Refinement was conducted class-by-class in hierarchical order: (1) Water, (2) Wetlands, (3) Forest and forest transition, (4) Permanent snow, (5) Agricultural lands, and (6) Persistent shrubland and herbaceous. Source: https://www.mrlc.gov/data/nlcd-2016-land-cover-conus.

Because CCAP land cover for wetlands in 2016 was not available, Coastal Commission staff reviewed the National Land Cover Database (NLCD) 2016 Land Cover data and compared it to the 1996 data set to establish trend over a 20-year period. Overall, the 2016 data show 10,065 more total acres of wetlands than represented in the 1996 dataset in the 15 coastal California counties. The California Aquatic Resources Inventory (CARI), a Geographic Information System (GIS) dataset of wetlands, streams, and riparian areas reflects a statewide standardized wetland classification system. This statewide dataset is hosted online through http://www.EcoAtlas.org, a web-service specifically designed to provide wetland information, at variable landscape scales, to environmental scientists, managers and planners.

Some CARI wetlands in the 15 coastal counties align roughly with the NLCD wetlands, but do not quantify the trends in coastal wetland restoration at a refined scale. Note, estuarine and palustrine wetland categories differ from the categories of wetlands presented in the NLCD 2016 data (woody wetlands and emergent herbaceous wetlands). The categories can overlap, as these wetlands can be in estuarine or palustrine environments. Woody wetlands are defined as areas where forest or shrubland vegetation accounts for greater than 20% of vegetative cover and the soil or substrate is periodically saturated with or covered with water. Emergent herbaceous wetlands are defined as areas where perennial herbaceous vegetation accounts for greater than 80% of vegetative cover and the soil or substrate is periodically saturated with or covered with water.

Coastal Wetlands Status and Trends*

Wetland Category	NLCD 2001 acres	NLCD 2011 acres	NLCD 2016 acres
Woody wetlands	90,143	90,014	91,078
Emergent herbaceous wetlands	150,518	149,305	151,875
Total wetlands	240,662	239,319	242,953

*Based on NLCD wetlands in California's 15 outer coast counties

Change in Wetlands	from 2001-2016	from 2011-2016
Percent net change in total wetlands (% gained or lost)	1.0%	1.5%

How Wetlands Are Changing*

Land Cover Type	Area of Wetlands Transformed to Another Type of Land Cover between 2001-2016 in Acres	Area of Wetlands Transformed to Another Type of Land Cover between 2011-2016 in Acres
Development	13,376 (20.9 mi^2)	18,048 (28.2 mi^2)
Agriculture	5,312 (8.3 mi^2)	6,400 (10.0 mi^2)
Barren Land	1,024 (1.6 mi^2)	1,088 (1.7 mi^2)
Water	5,312 (8.3 mi^2)	5,824 (9.1 mi^2)

*Note that wetlands have also been restored or converted from other land cover types as well, so the loss is offset in California over the last five years as seen in the tables above.

Wetlands are changing by transformation to other land cover types such as development, agriculture, barren, and water. However, this does not capture how wetlands are also being restored or transformed within an overall wetland category or from other land use types. One 2019 study of federally funded restoration projects found that from 2006 to 2015, voluntary restoration resulted in 145,443 acres (~227 mi^2) of estuarine wetlands and 154,772 acres (~242 mi^2) of palustrine wetlands in all U.S. coastal counties. [5] The study reported the whole state of California restored 7,180 acres from 2006-2010 and 44,166 acres of estuarine wetland from 2011-2015. Note that only a portion of those reported numbers would correspond to outer coast county jurisdictions because substantial restoration occurred in San Francisco Bay and Delta regions.

2. If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends of coastal wetlands since the last assessment to augment the national data sets.

The Coastal Commission collects data on regulatory actions of the Coastal Commission using the agency's in-house Coastal Data Management System (CDMS). As the Coastal Act requires that new development avoid and mitigate impacts to wetlands, the Coastal Commission tracks impacts on wetland acreage. These data reflect permitted, not necessarily completed projects, and the table below reflects tidal wetlands related actions over the last 5 years.

[5] Gittman, R.K., Baillie, C.J., Arkema, K.K., Bennett, R.O., Benoit, J., Blitch, S., Brun, J., Chatwin, A., Colden, A., Dausman, A. and DeAngelis, B., 2019. Voluntary restoration: mitigation's silent partner in the quest to reverse coastal wetland loss in the USA. Frontiers in Marine Science, 6, p.511. https://doi.org/10.3389/fmars.2019.00511

Tidal Wetland Habitat – Acreage Gained or Lost Over Past Five (5) Years (Data source: CDMS)

Performance Measure	FY1415	FY1516	FY1617	FY1718	FY1819	Total past 5 years
	PM# 2	PM# 2	PM# 2	PM# 2	PM# 2	PM# 2
Tidal wetland acres created and restored	2,850.14	25.80	199.31	63.43	280.13	3,418.8
Tidal wetland acres lost	-0.01	-8.30	-1.05	-3.35	-21.36	-34.1
Total Tidal Wetland Habitat - total acres gained or lost	2,850.13	17.50	198.26	60.08	258.77	3,384.7

While local, state, and federal agencies work with partners to restore wetlands, sea level rise and climate change pose additional risks to existing ones. As sea level rises along the Pacific coast in the coming decades, existing rates of marsh accretion at some sites may be insufficient to keep pace with local sea level rise (SLR) in the absence of proactive management. In a 2016 USGS study[6], intensive local sampling at a series of sites along the California coast, done to model local and regional differences in tidal marsh vulnerability to sea level rise, found that mid and high SLR rates threatened the persistence of vegetated marsh at most locations over the coming century. The timing and degree of projected impacts varied among sites. Under medium confidence emission scenarios, all sites lost high marsh habitat by 2100, and most sites became dominated by either low marsh or mudflat habitat. However, all the other 2016 USGS study sites also tended to transition to low marsh habitat over the next 50–100 years. A 2018 Conserving California's Coastal Habitats report[7] confirmed the vulnerability of many California wetlands. The report found 58% of marshes and 55% of tidal flats vulnerable to 5 feet of sea level rise, but also identified where potential future habitat could be established.

[6] Thorne, K.M., MacDonald, G.M., Ambrose, R.F., Buffington, K.J., Freeman, C.M., Janousek, C.N., Brown, L.N., Holmquist, J.R., Gutenspergen, G.R., Powelson, K.W., Barnard, P.L., and Takekawa, J.Y., 2016, Effects of climate change on tidal marshes along a latitudinal gradient in California: U.S. Geological Survey Open-File Report 2016-1125, 75 p., http://dx.doi.org/10.3133/ofr20161125.

[7] Heady, W. N., B. S. Cohen, M. G. Gleason, J. N. Morris, S. G. Newkirk, K. R. Klausmeyer, H. Walecka, E. Gagneron, M. Small. 2018. *Conserving California's Coastal Habitats: A Legacy and a Future with Sea Level Rise*. The Nature Conservancy, San Francisco, CA; California State Coastal Conservancy, Oakland, CA. 143 pages. https://www.conservationgateway.org/ConservationPractices/Marine/crr/library/Documents/TNC_SCC_CoastalAssessment_lo%20sngl.pdf

Coastal Commission staff is engaged in restoration projects throughout the state, as indicated in the table above. Additionally, many of the landscape scale restoration efforts encompass more than one type of wetland or sensitive coastal resource. For example, the University of California, Santa Barbara North Campus Open Space (NCOS) Restoration Project started in 2012 aimed at restoring an area of salt marsh, high marsh, native grassland, coastal sage scrub, sandy dune, southern riparian scrub, seasonal/vernal pond, fresh/brackish wetland, and other environmentally sensitive habitat area (ESHA)[8]. The grading and movement of soil on the site occurred in 2017. Restoration planting followed and was expected to be completed by the year 2020, with most of the components of monitoring to continue through the year 2022. Following completion of the proposed NCOS restoration, the project footprint will support a total of 81.10 acres of new native habitat that will be created by the proposed restoration. The table below provides a breakdown of the acres of existing, impacted, preserved, enhanced, restored and post project native habitat areas.[9]

North Campus Open Space (NCOS) Restoration Project Acreage

NCOS Project Habitats	Existing (acres)	Impacted (acres)	Preserved (acres)	Enhanced (acres)	Restored (acres)	Post project Habitat Area
Aquatic/Subtidal	0	0	0	0	3.98	3.98
Mudflat/Salt Flat	0	0	0	0	5.92	5.92
Salt Marsh	1.35	0.19	1.16	0	13.50	14.66
High Marsh/ Transition (CCC Wetland)	13.74	13.74	0	0	18.51	18.51
Riparian	0	0	0	0	0.99	0.99
Native Grassland	1.96	0.48	1.48	3.40	24.07	28.95
Coastal Sage Scrub	4.64	1.52	3.12	8.84	13.41	25.37
Sandy Dune	2.25	0	2.25	1.86	2.09	6.20
Southern Riparian Scrub	4.22	0.34	3.88	0	1.66	5.4
Seasonal/Vernal Pond	1.40	0.24	1.16	0	3.24	4.40
Plover Nesting	0	0	0	0	3.01	3.01
Upland Clay Annuals	0	0	0	0	0.25	0.2
Fresh/Brackish Wetland (Coastal Freshwater Marsh	9.14	7.56	1.58	0	0.63	2.21

[8] According to the Coastal Act Section 30107.5, ESHA is "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."

[9] Excerpted from Table 3 of the August 3, 2016 UCSB NCOS Coastal Development Permit and Notice of Impending Development Project Description

NCOS Project Habitats	Existing (acres)	Impacted (acres)	Preserved (acres)	Enhanced (acres)	Restored (acres)	Post project Habitat Area
South Parcel NCFH Mitigation Area-ESHA	12.78	0	12.78	0	0	12.78
Total	51.48	24.07	27.41	14.10	91.26	132.58

In addition to the NCOS project, the Coastal Commission has permitted several large wetland restoration and mitigation bank projects that include the San Elijo Lagoon restoration, Elkhorn Slough, and Colorado Lagoon project. These projects are in early stages and will result in restored wetland acreage on the ground in future years.

Management Characterization:

1. Indicate if there have been any significant changes at the state or territory level (positive or negative) that could impact the future protection, restoration, enhancement, or creation of coastal wetlands since the last assessment.

Significant Changes in Wetland Management

Management Category	Significant Changes Since Last Assessment (Y or N)
Statutes, regulations, policies, or case law interpreting these	Y
Wetlands programs (e.g., regulatory, mitigation, restoration, acquisition)	Y

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
    a. Describe the significance of the changes;
    b. Specify if they were 309 or other CZM-driven changes; and
    c. Characterize the outcomes or likely future outcomes of the changes.

<u>Statutes, regulations, policies, or case law</u>

State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State

a) The State and Regional Water Resources Control Boards (Water Boards) developed a new Wetland and Riparian Area Protection Policy in 2014 and adopted a statewide wetland definition and procedures for discharges of dredged or fill material to waters of

the state in April 2019.[10] The new definition and procedures for discharges of dredged or fill material are required in the water quality control plans for inland surface waters and enclosed bays and estuaries and ocean waters of California, for use by the Water Boards. This change was to ensure that waters of the state will continue to be protected under its jurisdiction, even if protections for federal waters continue to be narrowed by administrative actions or the courts. The rules also include procedures for discharges of dredged or fill material to waters of the state. Waters of the State of California, protected under Porter Cologne by the Water Boards, are, by definition, broader than the "waters of the United States" covered by federal regulation.

b) Commission staff provided input on the new rules through the years and supported the Water Board's efforts to protect waters of the state. However, the Coastal Act continues to be more protective of wetlands, and the wetland definition used by Coastal staff is fully vetted. Commission staff has consistently noted that it is important that the Water Boards are clear, in adopting a "statewide" wetland definition, that the new wetland definition does not supersede the wetland definition used by other state agencies, including that used by the Commission in the Coastal Zone.

c) These are not 309 driven changes.

d) The new rules clarify what wetlands are considered waters of the state to provide a framework for monitoring and reporting water quality. The policy supports an outcome of establishing a uniform regulatory approach across all Water Board regions that complements the federal Clean Water Act section 404 program for the discharge of dredged or fill material into all waters of the state, including wetland areas that qualify as waters of the state. Coastal Commission staff will continue to work with the Water Boards in our common mission to protect these coastal resources.

<u>Wetlands programs</u>

Southern California Wetlands Recovery Project

a) The Southern California Wetlands Recovery Project (SCWRP) was established in 1997 as a partnership between 14 federal and state entities. The SCWRP is chaired by the Resources Agency and supported by the State Coastal Conservancy, and partners include public agencies, non-profits, scientists, and local communities. The organization's overall goal is to acquire, restore, and expand rivers, streams, and wetlands in coastal Southern California using a regional approach. The Wetland Managers Group (WMG) consists of staff members from the public agencies that make up the SCWRP and meets on a quarterly basis to make vital decisions that guide programmatic and project goals. The Wetlands Managers Group also provides input and guidance on key scientific questions and initiatives like updating the Regional Strategy. In 2018, the SCWRP produced a Regional Strategy with numeric targets that will help

[10]https://www.waterboards.ca.gov/press_room/press_releases/2019/pr04022019_swrcb_dredge_fill.pdf

quantify progress towards meeting the SCWRP's goals and vision of restoring and protecting wetlands and rivers.[11]

b) Yes, this work is CZM driven as the State Coastal Conservancy and California Coastal Commission are on the SCWRP Board of Governors and Wetland Managers Group.

c) The project will provide continued funding for and accomplishment of wetland acquisition, restoration, and enhancement in Southern California, motivated by a regional, ecosystem-based management approach.

Program for Wetland Mitigation (In-Lieu Fees and Wetland Mitigation Banks)

a) In April 2012, the SCWRP Board of Governors directed the Wetland Managers Group to develop an in-lieu fee program for wetland mitigation in the Southern California bight. This program would allow the aggregation of mitigation funds to implement regionally important projects rather than focusing on small acre-by-acre projects. The Coastal Conservancy, as a representative and fiscal agent for SCWRP, released a draft program prospectus in April 2013 and engaged several state and local agencies, including the Coastal Commission for guidance in developing the in-lieu fee program so that it is sufficiently broad to meet the mitigation needs of multiple agencies. Although this in lieu fee program no longer being pursued, it served as the entry point for the Coastal Commission staff to engage in the development of mitigation banks that are developed consistent with regulations issued by the U.S. Army Corps of Engineers (ACOE) and EPA that govern compensatory mitigation for activities authorized by ACOE permits (published in the Federal Register in April 2008).

   Since 2013, Commission staff has participated in several Interagency Review Teams (IRT) for individual banks in the coastal zone as well as the statewide Project Delivery Team (PDT). Through the various IRTs, Commission staff has worked with federal and state partners to develop mitigation banks to meet the requirements for mitigation under the Coastal Act as well as the ACOE regulations. The Commission's overall goal for participating in the development of mitigation banks in the coastal zone is twofold: (1) to facilitate implementation of regionally significant restoration projects, and (2) streamline the selection and development of appropriate mitigation projects as part of the Commission's regulatory process.

   In 2019, the Commission authorized the Executive Director to become a signatory to the Colorado Lagoon Mitigation in Long Beach, CA. Two additional banks are expected to come before the Commission for approval in the next few years. In addition, Commission staff is also working with Caltrans and other federal and state agencies to develop a statewide advanced mitigation banking program for Caltrans projects. Development of this program is expected to increase the ecological value of mitigation

[11] Southern California Wetlands Recovery Project. 2018. Wetlands on the Edge: The Future of Southern California's Wetlands: Regional Strategy 2018. Prepared by the California State Coastal Conservancy, Oakland, Ca.

implemented by Caltrans and significantly streamline regulatory review of transportation projects.

b) 309 or CZM driven: Yes, in that the State Coastal Conservancy and California Coastal Commission are on the SCWRP Board of Governors. Also, the State Coastal Conservancy would act as the fiscal sponsor for the program.

c) Likely future outcomes: Aggregated mitigation funds to implement regionally important projects rather than small acre-by-acre mitigation projects.

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

High _____
Medium __x___
Low _____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

Wetland resource concerns for California's coastal zone span a variety of complex and sensitive issues, especially given the magnitude of loss experienced since statehood, and the small areas of wetlands that remain. Stakeholder comments requested additional protection for wetlands and more coordination with local agencies and partners on restoration. Protecting coastal wetlands is a high priority and critical component of the coastal program overall, as it pertains to the regulation of land use and development. Land use and development patterns will have a great impact on remaining wetlands and these transitional habitats will experience early impacts resulting from sea level rise and climate change. As such, the Coastal Hazards and Special Area Management Plan (SAMP) priority enhancement areas will address wetlands where relevant/appropriate.

Coastal Hazards

Section 309 Enhancement Objective: Prevent or significantly reduce threats to life and property by eliminating development and redevelopment in high-hazard areas, managing development in other hazard areas, and anticipating and managing the effects of potential sea level rise and Great Lakes level change. §309(a)(2)

Note: For purposes of the Hazards Assessment, coastal hazards include the following traditional hazards and those identified in the CZMA: flooding; coastal storms (including associated storm surge); geological hazards (e.g., tsunamis, earthquakes); shoreline erosion (including bluff and dune erosion); sea level rise; Great Lake level change; land subsidence; and saltwater intrusion.

PHASE I (HIGH-LEVEL) ASSESSMENT:

Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. In the table below, indicate the general level of risk in the coastal zone for each of the coastal hazards. The following resources may help assess the level of risk for each hazard. Your state may also have other state-specific resources and tools to consult. Additional information and links to these resources can be found in the "Resources" section at the end of the Coastal Hazards Phase I Assessment Template:

    - The state's multi-hazard mitigation plan.
    - Coastal County Snapshots: Flood Exposure
    - Coastal Flood Exposure Mapper
    - Sea Level Rise Viewer/Great Lakes Lake Level Change Viewer
    - National Climate Assessment

General Level of Hazard Risk in the Coastal Zone

Type of Hazard	General Level of Risk[12] (H, M, L)
Flooding (riverine, stormwater)	M
Coastal storms (including storm surge)	H
Geological hazards (e.g., tsunamis, earthquakes)	H
Shoreline erosion	H
Sea level rise	H
Great Lakes level change	N/A
Land subsidence	L (some H places)
Saltwater intrusion	M
Other (please specify)	Fire (+ associated erosion)– H

2. If available, briefly list and summarize the results of any additional data or reports on the level of risk and vulnerability to coastal hazards within your state since the last assessment. The state's multi-hazard mitigation plan or climate change risk assessment or plan may be a good resource to help respond to this question.

Sea Level Rise Resources

- Coastal Commission Sea Level Rise Guidance Science Update. November 2018. https://documents.coastal.ca.gov/assets/slr/guidance/2018/0_Full_2018AdoptedSLRGuidanceUpdate.pdf
  On November 7, 2018, the Coastal Commission unanimously adopted a Science Update to the 2015 Commission Sea Level Rise Policy Guidance. It provides an overview of the best available science on sea level rise for California and recommended methodology for addressing sea level rise in Coastal Commission planning and regulatory actions. The 2018 science-focused changes reflect recent scientific studies and statewide guidance that update our understanding of best available science on sea level rise projections relevant to California. Other sections of the Guidance remain unchanged.

- Coastal Commission Sea Level Rise Vulnerability Synthesis. December 2016. https://www.coastal.ca.gov/climate/slr/vulnerability-adaptation/vulnerability/#/map
  The Statewide Synthesis Report provides many important key findings about California's vulnerabilities to sea level rise throughout the coastal areas of the state. Beaches, coastal access, and coastal recreation areas will be vulnerable to sea level rise in all coastal counties. In more rural areas, the risks are from inundation of beach areas and roads, erosion of upland trails, and the loss of vertical access. In more urban areas, the

[12] Risk is defined as "the estimated impact that a hazard would have on people, services, facilities and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage." *Understanding Your Risks: Identifying Hazards and Estimating Losses. FEMA 386-2. August 2001*

largest threat to these areas arises from efforts to protect inland development from flooding and erosion. These findings, the County Snapshots and the LCP Case Studies will be used to guide and promote future efforts, including in funding decisions on LCP local assistance grants and for pursuing financial support to address identified gaps and needs for additional information on sea level rise vulnerabilities and impacts.

- Coastal Storm Modeling System (CoSMoS)

  CoSMoS is a dynamic modeling approach that has been developed by the United States Geological Survey in order to allow more detailed predictions of coastal flooding due to both future sea-level rise and storms integrated with long-term coastal evolution (i.e., beach changes and cliff/bluff retreat) over large geographic areas. CoSMoS models all the relevant physics of a coastal storm (e.g., tides, waves, and storm surge), which are then scaled down to local flood projections for use in community-level coastal planning and decision-making. Projections of multiple storm scenarios (daily conditions, annual storm, 20-year- and 100-year-return intervals) are provided under a suite of sea-level rise scenarios ranging from 0 to 2 meters (0 to 6.6 feet), along with an extreme 5-meter (16-foot) scenario.

- Ocean Protection Council. 2018. State of California Sea-Level Rise Guidance 2018 Update. http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf

  This updated Guidance document, provides a science-based methodology for state and local governments to analyze and assess the risks associated with sea-level rise, and to incorporate sea-level rise into their planning, permitting, and investment decisions. It synthesizes the best available science on sea level rise projections and rates for California; gives a step-by-step approach for state agencies and local governments to evaluate those projections and related hazard information in decision making; and describes preferred coastal adaptation approaches.

- 2018 California Sea Level Rise Snapshots prepared for the Ocean Protection Council by the Climate Readiness Institute. Updated May 2018. As part of the AB 2516 Planning for Sea Level Rise Database Project for the Ocean Protection Council (OPC), the Climate Readiness Institute (CRI) at UC Berkeley developed a series of "snapshots" to document and measure progress on sea level rise planning and implementation in six regions of California—San Diego, Los Angeles/Orange, Central Coast, San Francisco Bay Area, Sacramento/San Joaquin Delta, and the North Coast. The six regional areas are making progress on sea level rise planning, but it varies widely depending on resources, public support, local champions, and other local factors. This work contributed to development of a new tool for evaluating adaptive capacity.[13]
  https://vcresearch.berkeley.edu/research-unit/climate-readiness-institute

[13] Hirschfeld, D., Hill, K. E., & Riordan, B. (2020). The regional fingerprint: A new tool to evaluate adaptive capacity. *Environmental Science & Policy*, *112*, 36-46.

- Integrated Climate Adaptation and Resiliency Program (ICARP) Impact Report and 2020 Program Recommendations. April 2020. Impact Report and 2020 Program Recommendations (ca.gov). The report touches on ongoing and emerging opportunities, challenges, gaps, and risks, and explores the work ahead for ICARP to best respond to climate change impacts in California. It describes the Adaptation Clearinghouse as a centralized source of information and resources to assist decision makers at the state, regional, and local levels when planning for and implementing climate adaptation projects that promote resiliency across the state.

- Coastal Plan Alignment Compass. 2019. https://resilientca.org/topics/plan-alignment/compass/. National Oceanic and Atmospheric Administration, U.S. Geological Survey, California Coastal Commission, California Governor's Office of Emergency Services, California Governor's Office of Planning and Research, California Ocean Protection Council, California State Coastal Conservancy, and Federal Emergency Management Agency staff worked together to create a tool for coordinating local plans to support multiple climate mitigation and adaptation goals, reduce duplication, and avoid potential policy conflicts. The Compass provides an overview of the required elements and best practices for each plan, discusses strategies to leverage vulnerability assessments to help make them usable and applicable to all plans, and identifies crosswalk opportunities and tricky spots to avoid.

- Griggs, G., J. Arvai, D. Cayan, R. DeConto, J. Fox, H.A. Fricker, R.E. Kopp, C. Tebaldi, and E.A. Whiteman, 2017. *Rising Seas in California: An Update on Sea-Level Rise Science*. Prepared by the California Ocean Protection Council Science Advisory Team Working Group. April 2017. http://www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf

- Heady, W. N., B. S. Cohen, M. G. Gleason, J. N. Morris, S. G. Newkirk, K. R. Klausmeyer, H. Walecka, E. Gagneron, M. Small. 2018. *Conserving California's Coastal Habitats: A Legacy and a Future with Sea Level Rise.* The Nature Conservancy, San Francisco, CA; California State Coastal Conservancy, Oakland, CA. 143 pages. https://www.conservationgateway.org/ConservationPractices/Marine/crr/library/Documents/TNC_SCC_CoastalAssessment_lo%20sngl.pdf

- Pierce, D. W., J. F. Kalansky, and D. R. Cayan, (Scripps Institution of Oceanography). 2018. *Climate, Drought, and Sea Level Rise Scenarios for the Fourth California Climate Assessment.* California's Fourth Climate Change Assessment, California Energy Commission. Publication Number: CNRA-CEC-2018-006. https://www.energy.ca.gov/sites/default/files/2019-07/Projections_CCCA4-CEC-2018-006.pdf
  Probabilistic sea level rise (SLR) projections were generated under RCP 4.5 and RCP 8.5, with estimates of changes in contributors to global and regional SLR and incorporating

new science on potential Antarctic ice loss. Additionally, hourly projections of sea level at selected coastal locations were generated that include tides, regional and local weather influences, and short period Pacific climate fluctuations, atop the aforementioned sea level rise scenarios.

- Befus, K.M., Barnard, P.L., Hoover, D.J., Hart, J.F. and Voss, C.I., 2020. *Increasing threat of coastal groundwater hazards from sea-level rise in California*. Nature Climate Change, pp.1-7.[14]
  As sea levels rise, the shallow groundwater table in coastal communities will also rise and pose a chronic threat. This rise can flood communities from below, damaging buried infrastructure, flooding below grade structures, reducing storm sewer capacity, releasing pollutants, compromising foundations, and emerging above ground as an urban flood hazard.

California's Fourth Climate Change Assessment

California's Fourth Climate Change Assessment (Fourth Assessment) advances actionable science that serves the growing needs of state and local-level decision-makers from a variety of sectors. The Fourth Assessment is part of California's comprehensive strategy to act based on cutting-edge climate research. The Fourth Assessment addresses critical information gaps that decision-makers at the state, regional, and local levels need addressed in order to protect California's people, infrastructure, natural systems, working lands, and waters.
https://www.energy.ca.gov/sites/default/files/2019-08/20180827_Summary_Brochure.pdf

Sievanen, Leila*, Phillips, Jennifer*, Charlie Colgan, Gary Griggs, Juliette Finzi Hart, Eric Hartge, Tessa Hill, Raphael Kudela, Nathan Mantua, Karina Nielsen, Liz Whiteman. 2018. California's Coast and Ocean Summary Report. California's Fourth Climate Change Assessment. Publication number: SUMCCC4A-2018-011.[15]

Fourth Assessment Oceans & Coasts Reports cover a variety of topics related to California's ocean and coast, including natural infrastructure, ocean acidification, communicating risk, and ecosystem carbon.

- **Land Acquisition and Ecosystem Carbon in Coastal California. Ackerly et al.**
  This report analyzes California's ecosystem carbon sequestration and evaluating the potential impact of avoided development. Report #: CCCA4-EXT-2018-003. Published: August 27, 2018

[14] Befus, K. M., P. L. Barnard, D. J. Hoover, J. A. Finzi Hart, C. I. Voss (2020). California Saline Groundwater Wedge Footprint Model Results, HydroShare, https://doi.org/10.4211/hs.1c95059edcf041a0959e0b4a1f05478c
[15] http://www.climateassessment.ca.gov/state/index.html

- **Growing Effort, Growing Challenge: Findings from the 2016 California Coastal Adaptation Needs Assessment. Moser et al.**
  This report advances the understanding of local governments' climate change adaptation finance challenges by examining the nature of those challenges and proposing solutions to address them (EXT-3). Report #: CCCA4-EXT-2018-009. Published: August 27, 2018
- **California Mussels as Bio-Indicators of Ocean Acidification. Gaylord et al.**
  This report explores the utility of employing newly settled California mussels as a bio-indicator of effects of ocean acidification. Report #: CCCA4-CNRA-2018-003. Published: August 27, 2018
- **Assessing and Communicating the Impacts of Climate Change on the Southern California Coast. Erikson et al.**
  This report assesses the coastal impacts of climate change for the California coast, including the combination of sea level rise, storms, and coastal change and translates that information into two simple, user-friendly online web tools. Report #: CCCA4-CNRA-2018-013. Published: August 27, 2018
- **Toward Natural Shoreline Infrastructure to Manage Coastal Change in California. Newkirk et al.**
  This report is intended to facilitate the use of Natural Shoreline Infrastructure along California's coast, improving the resilience of communities and habitats in the face of climate change. Report #: CCCA4-CNRA-2018-011. Published: August 27, 2018
- **CERI-Climate. California Emergency Response Infrastructure Climate Vulnerability Tool.**
  Assessing Vulnerability and Improving Resilience of Critical Emergency Management Infrastructure in California in a Changing Climate Final Results (June 2018). https://public.tableau.com/profile/rand4185#!/vizhome/CJ302-1000_CERI-Climate_20180625/Title

Additional Hazard Resources

- CalOES. September 2018. CALIFORNIA STATE HAZARD MITIGATION PLAN. https://www.caloes.ca.gov/HazardMitigationSite/Documents/002-2018%20SHMP_FINAL_ENTIRE%20PLAN.pdf
  The 2018 California State Hazard Mitigation Plan includes: an updated statewide risk assessment, disaster history, and statistics; recent mitigation progress, success stories, and best practices; updated state hazard mitigation goals, objectives, and strategies; and updated climate mitigation progress and adaptation strategies. Flooding is considered one of the three primary hazards in California (along with earthquake and wildfire). Flood hazards include riverine, stream, and alluvial flooding and coastal flooding, erosion, and sea level rise, all of which are influenced by climate and weather. The plan represents the state's overall commitment to supporting a comprehensive mitigation strategy to reduce or eliminate potential risks and impacts of disasters in order to promote faster recovery after disasters and, overall, a more resilient state.

Fire Resources

- 2018 Strategic Fire Plan for California: Board of Forestry's master plan in terms of providing guidance for statewide fire protection in state responsibility areas, usually updated every decade.
- Executive Order N-05-19: Gov. Newsom signed this executive order on January 9, 2019, which directed the California Department of Forestry and Fire Protection (CAL FIRE), in consultation with other state agencies and departments, to recommend immediate, medium and long-term actions to help prevent destructive wildfires in a 45-day report (see 45-report below).
- CalFire 45-day report: Discusses 35 priority projects as well as medium and long-term actions to be taken, including the Board of Forestry's Vegetation Treatment Program PEIR (a long-term action) that Statewide Planning is collaborating on with the BOF (Final PEIR has now been published).
- Fire Hazard Planning – General Plan Technical Advice Series: Planning guide geared towards helping "provide a robust fire hazard mitigation program" through General Plan updates in California communities.
- Wildfires and Climate Change - California's Energy Future: A Report from Governor Newsom's Strike Force (April 12, 2019) that describes hazard planning approaches, such as prioritizing building in less hazardous areas, home retrofits, and creating defensible spaces.

Management Characterization:

1. In the tables below, indicate if the approach is employed by the state or territory and if significant state- or territory-level changes (positive or negative) have occurred that could impact the CMP's ability to prevent or significantly reduce coastal hazards risk since the last assessment.

Significant Changes in Hazards Statutes, Regulations, Policies, or Case Law

Topic Addressed	**Employed by State or Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
Elimination of development/redevelopment in high-hazard areas[16]	Y*	Y	N
Management of development/redevelopment in other hazard areas	Y*	Y	Y†

[16] Use state's definition of high-hazard areas.

Climate change impacts, including sea level rise or Great Lakes level change	Y*	Y	Y

*Many of these management topics are addressed on a case-by-case basis through Local Coastal Programs. The Coastal Commission provides technical and planning assistance for the development of these LCPs (and supports each of these topics/policies etc.), and has awarded 6 rounds of a grant program (funding from the Governor/legislature) to support LCP updates (particularly updates that include climate change adaptation).

†Management of development/redevelopment in **all** hazard areas.

Significant Changes in Hazards Planning Programs or Initiatives

Topic Addressed	**Employed by State or Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
Hazard mitigation	Y	Y	Y
Climate change impacts, including sea level rise or Great Lakes level change	Y	Y	Y

Significant Changes in Hazards Mapping or Modeling Programs or Initiatives

Topic Addressed	**Employed by State or Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
Sea level rise or Great Lakes level change	N	Y	Y
Other hazards	N	Y	N

2. Briefly state how “high-hazard areas” are defined in your coastal zone.

   “High-hazard areas” aren’t specifically defined for the entire coastal zone, but are rather identified on an individual basis in Local Coastal Programs based on the particular hazards present (e.g. seismic, fire, flood, sea level rise, storms, wave runup, tsunamis etc.)

3. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
   a. Describe the significance of the changes;

b. Specify if they were 309 or other CZM-driven changes; and
c. Characterize the outcomes or likely future outcomes of the changes.

Hazards Statutes, Regulations, Policies, or Case Law

a) Since the last assessment, significant changes have occurred in statutes, regulations, policies, hazards planning programs, and mapping/modeling programs. The most far reaching changes have occurred in the areas of climate change and sea level rise, although the recent damaging fires have also led to new efforts at fire safety.

At the state level, key reports on climate change and sea level rise were the Ocean Protection Council's 2017 Rising Seas in California: An Update on Sea-Level Rise Science[17], California's 4th Climate Change Assessment (2018), and the 2018 Ocean Protection Council's Sea Level Guidance. These formed the basis for the California Coastal Commission's 2018 Updated Sea Level Rise Policy Guidance, and Draft Residential Adaptation Policy Guidance. These documents all helped to bring attention to the potential consequences of climate change and sea level rise and to identify general and specific strategies and actions that the state will take to address these concerns.

On a case-by-case basis, Local Coastal Program updates (particularly updates that include climate change-related hazards and adaptation), were supported by Coastal Commission technical and planning assistance through 6 rounds of a grant program (funding from the Governor/legislature). Several recent guidance documents have resulted in significant changes to the emphasis placed on climate change and sea level rise policy in California.

b) The California Coastal Commission's Sea Level Rise Policy Guidance and 2018 update, as well as Draft Residential Adaptation Guidance, were the only significant changes that were 309 driven; however, the Coastal Commission, the SF Bay Conservation and Development Commission and the California Coastal Conservancy were contributors and reviewers of the Ocean Protection Council's Sea Level Rise Guidance. Additionally, Local Coastal Program updates and grants to local jurisdictions to complete vulnerability assessments are CZM driven.

c) Expected outcomes from these changes in policies are that existing and future development will be undertaken with greater awareness of potential impacts resulting from tsunamis, climate change and sea level rise and that avoidance of tsunami and sea-level rise related hazards will become more important for the siting or permitting of new development, the innovative design of new structures/ infrastructure, when necessary, in vulnerable areas, and the integration of climate risk considerations into emergency management activities.

[17] http://www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf

Hazards Planning Programs or Initiatives

a) Changes to hazard planning programs and initiatives include the 2018 California State Hazard Mitigation Plan (SHMP), the new California Vegetation Treatment Program to fight wildfire, and the interagency team on coastal hazard resilience planning. The 2018 SHMP provides a resource for local planners of risk information that may affect their planning area, including earthquake, flood, fire, and other climate and weather-related hazards. The SHMP describes how California is pursuing climate change adaptation through a wide range of guidance and legislation, such as Safeguarding California Plan: 2018 Update, the California Adaptation Planning Guide, Executive Orders S-13-08 and B-30-15, and Senate Bills 246, 379, 1000, 2800, and others.

The Coastal Commission worked on an interagency team with NOAA, USGS, FEMA, OES, OPR, OPC, and SCC on plan alignment producing the Coastal Plan Alignment Compass to support California's coastal communities as they develop and coordinate local plans (Local Hazard Mitigation Plans, Adaptation Plans, General Plans, and Local Coastal Programs) to better prepare for sea level rise and coastal flooding and leverage FEMA funding opportunities to plan for and implement sea level rise adaptation projects.

New efforts have also been undertaken on tsunami planning and preparedness. At the national level, the newly adopted American Society of Civil Engineers ASCE 7-16 includes design recommendations for high-occupancy development in tsunami run-up areas. These recommendations have been incorporated into the California Building Code from there, will be incorporated into many local building codes. At the state level, California Geological Survey CGS) and California Office of Emergency Services (CalOES) have developed Community Tsunami Response Playbooks and Maritime Tsunami Response Playbooks to assist communities, ports and harbors in responding to tsunami warnings. Commission staff, through participation on the Tsunami Policy Working Group, have provided a review role in the development of these resources. Commission staff, with partial funding from CGS, are also in the process of completing Guidance for Including Tsunamis into Local Coastal Programs and other Planning Documents (expected to be available to the public in mid-2021).

A new program certified in December 2019 by the California Board of Forestry and Fire Protection aims to minimize wildland fire risk across the state. The California Vegetation Treatment Program, or "CalVTP", will direct implementation of vegetation treatments on public and private land across the state as one component of the state's efforts to reduce the risk of loss of lives and property, reduce fire suppression costs, and protect natural resources from wildfire. The Coastal Commission staff have been coordinating with California Board of Forestry and other on how best to carry out this plan in the coastal zone.

b) Under Hazards Planning Programs, only the Coastal Plan Alignment Compass was a CZM-driven change in partnership with NOAA and FEMA, using 309-funds. Commission staff participated and provided input to the update of the 2018 SHMP and the development of

the CalVTP as it pertains to the coastal zone with state funds. Commission staff carried out tsunami work also using state funds.

c) Expected outcomes from these changes in programs are greater awareness and implementation of adaptation for potential impacts resulting from climate change effects on wildfire, sea level rise, coastal flooding, and tsunamis. Results also include integration of climate risk considerations into emergency management activities and hazard preparedness.

Hazards Mapping or Modeling Programs or Initiatives

a) Significant progress in hazards mapping and modeling programs since the last assessment period include the USGS Coastal Storm Modeling System (CoSMoS)[18] updates, California's Fourth Climate Change Assessment tools, and local government vulnerability studies. CoSMoS enables more detailed predictions of coastal flooding due to both future sea-level rise and storms integrated with long-term coastal evolution (i.e., beach changes and cliff/bluff retreat) than previous models. Long-term shoreline change and cliff retreat, as well as the presence of armoring, are accounted for in the flood risk mapping, currently available for the north-central coast (Half Moon Bay to Pt. Arena), San Francisco Bay, southern California, and the central California coast. California's Fourth Climate Change Assessment Cal-Adapt tool[19] also provides flood risk mapping and flood depths given current and sea level rise scenarios. Lastly, local jurisdictions have created risk mapping within local vulnerability assessments using the Coastal Commission's Local Assistance Grant Program that provides funds to support local governments in completing or updating Local Coastal Programs (LCP) consistent with the California Coastal Act, with special emphasis on planning for sea-level rise and climate change. As of December 2019, 32 jurisdictions have generated draft or final sea level rise vulnerability assessments using these grant funds.[20]

b) Local Coastal Program updates and grants to local jurisdictions to complete vulnerability assessments and risk mapping are CZM driven.

c) Expected outcomes from these changes include improved risk mapping at a state and local level.

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

High __x___

[18] https://www.usgs.gov/centers/pcmsc/science/coastal-storm-modeling-system-cosmos?qt-science_center_objects=0#qt-science_center_objects
[19] https://cal-adapt.org/tools/slr-calflod-3d/
[20] https://www.coastal.ca.gov/lcp/grants/

Medium _____
Low _____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

Addressing hazards management, especially regarding adapting to the impacts of climate change, is a high priority. This is substantiated in the agency's 2021-2025 Strategic Plan and was a frequent theme of stakeholder feedback as many called for urgently addressing climate change through both mitigation and adaptation-related efforts. Goal 4 of that Strategy is to Support Resilient Coastal Communities in the Face of Climate Change and Sea Level Rise. Coastal hazards will intensify as sea level rise and temperatures warm. Hazard responses (such as shoreline armoring and bluff retaining structures) will impact public access, coastal resources, public trust lands and water quality. Consequently, this enhancement area is a high priority to be addressed in the next five-year strategy.

Public Access

Section 309 Enhancement Objective: Attain increased opportunities for public access, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological, or cultural value. §309(a)(3)

PHASE I (HIGH-LEVEL) ASSESSMENT: *(Must be completed by all states.)*
Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. Use the table below to provide data on public access availability within the coastal zone.

Public Access Status and Trends

Type of Access	Current number[21]	Changes or Trends Since Last Assessment[22] (↑, ↓, –, unkwn)	Cite data source
Beach access sites	1429+37= 1466	**+ 37**	In-house CDMS* database and annual CZMA PMS reporting
Shoreline (other than beach) access sites	793+4 = 797	**+4**	In-house CDMS* database and annual CZMA PMS reporting
Recreational boat (power or nonmotorized) access sites	227+5 = 232	**+5**	In-house CDMS* database and annual CZMA PMS reporting
Number of designated scenic vistas or overlook points	589+11 = 600	**+11**	In-house CDMS* database and annual CZMA PMS reporting

[21] Be as specific as possible. For example, if you have data on many access sites but know it is not an exhaustive list, note "more than" before the number. If information is unknown, note that and use the narrative section below to provide a brief qualitative description based on the best information available.
[22] If you know specific numbers, please provide. However, if specific numbers are unknown but you know that the general trend was increasing or decreasing or relatively stable or unchanged since the last assessment, note that with a □□(increased)□□□□(decreased)□□□□(unchanged). If the trend is completely unknown, simply put "unkwn."

Number of fishing access points (i.e. piers, jetties)	555 + 2 = 557	**+2**	In-house CDMS* database and annual CZMA PMS reporting
Coastal trails/ boardwalks *(Please indicate number of trails/boardwalks and mileage)*	No of trails = 824 + 69 = 893 (can't provide current miles)	**+69** Mileage generally increased (Exact mileage numbers not currently tracked)	In-house CDMS* database and annual CZMA PMS reporting
Number of acres parkland/open space	597,528 acres	↑ In 2014 Assessment and Strategy, there were a total of 595,781 acres of parkland/open space. In 2019, the total acreage of parkland/open space is 597,528 acres, which is a gain of 1,747 acres of parkland/open space since 2014. (Consistent with past Assessments, this includes the Farallon and Channel Islands, and offshore rocks of the California Coastal National Monument)	GreenInfo Network - California Protected Areas Database, CPAD 2019
Access sites that are Americans with Disabilities Act (ADA) compliant[23]	794 locations	↑ Number of ADA-compliant sites Increased from reported 767 sites in 2015. (Note, exact numbers of "ADA-compliant" sites not currently tracked)	In-house CDMS* database, annual CZMA PMS reporting, www.yourcoast.org
Other (please specify)			

'*' CDMS = Coastal Data Management System, in house database for tracking Coastal Development Permits, and other Coastal Commission actions.

2. Briefly characterize the demand for coastal public access and the process for periodically assessing demand. Include a statement on the projected population increase for your coastal counties. There are several additional sources of statewide information that may help inform this response, such as the Statewide Comprehensive Outdoor Recreation

[23] For more information on ADA see *www.ada.gov*.

Plan,[24] the National Survey on Fishing, Hunting, and Wildlife Associated Recreation,[25] and your state's tourism office.

There will always a high demand for public access opportunities to and along California's coast. The beauty of this coast is known world-wide and it will always be a draw for locals and visitors alike. At 1,270 miles long, the California coast provides endless opportunities for various types of recreation, both active and passive, and both locals and visitors want to enjoy all that this iconic shoreline has to offer. The state's population is currently at almost 40 million people, and while not currently growing at a high rate (current estimates are at .37%, primarily due to the high cost of living), tourists number about 67 million per year. California Department of State Parks (State Parks) reported in 2017 that approximately 29 million people per year visited state beaches (including camping and day use).[26]

The state periodically assesses demand for coastal access. For example, in 2015, State Parks embarked on a multi-year planning process, called *Parks Forward*.[27] The goal was to evaluate the status of the California State Park system and identify goals for achieving improvement. One of the significant issues identified was the inequity of which populations use the parks in the coastal zone. Citizens located in inland and/or underserved communities are often unable to enjoy the recreational opportunities along the coast. Barriers include lack of affordable and/or available public transit, lack of personal cars and/or ability to pay daily parking fees.

Another assessment that has been conducted during the reporting period is on the demand for public access related to affordable overnight accommodations in the coastal zone. In 2017 UCLA researchers released the *Access for All: A New Generations Challenges on the California Coast* report that estimated that there has been a 70% loss of economy hotel rooms since 1989.[28] The trend of economy hotels being replaced with luxury hotels prevents the majority of the vacationing public from being able to stay overnight along the coast. The study also highlighted differences in overnight visitation by age, income, and race. It found that while 77

[24] Most states routinely develop "Statewide Comprehensive Outdoor Recreation Plans", or SCROPs, that include an assessment of demand for public recreational opportunities. Although not focused on coastal public access, SCORPs could be useful to get some sense of public outdoor recreation preferences and demand. Download state SCROPs at*www.recpro.org/scorp-library*.

[25] The National Survey on Fishing, Hunting, and Wildlife Associated Recreation produces state-specific reports on fishing, hunting, and wildlife associated recreational use for each state. While not focused on coastal areas, the reports do include information on saltwater and Great Lakes fishing, and some coastal wildlife viewing that may be informative and compares 2016 data to 2011, 2006 and 2001 information to understand how usage has changed. See www.wsfrprograms.fws.gov/subpages/nationalsurvey/national_survey.htm

[26]Planning, Recreation and Support Section Marketing and Business Development Office California State Parks *Statistical Report*. 2016/17 Fiscal Year. https://www.parks.ca.gov/pages/795/files/16-17%20Statistical%20Report%20FINAL%20for%20web.pdf

[27] The goal of the Parks Forward Initiative is to develop a new vision and approach to manage, use, and sustain California's state parks. The Parks Forward Commission will address a broad set of issues, including how the Department and the state parks system are organized, structured, managed, funded, and staffed, as well as the mission, number, location, and activities of individual state park unit. http://www.parksforward.com/

[28] UCLA. 2017. "Access for All: A New Generation's Challenges on the California Coast," 25 January 2017.

percent of California voters visit the coast at least once a year, African Americans are less likely to visit the coast, with 33 percent visiting less than once a year.

There may be social factors at play that lead to people of color feeling unwelcome at coastal beaches and recreational areas. In 2017, the California Legislature's recognized this problem and passed Assembly Bill 250 in 2017. This bill directed the State Coastal Conservancy, in coordination with the Coastal Commission and State Parks, to develop and implement a Lower Cost Visitor Serving Program. Creation of this program is a direct response to documented continual loss of affordable overnight accommodations along the coast. In 2019, the State Coastal Conservancy released an assessment of lower-cost coastal accommodations to guide the establishment of the new *Explore the Coast Overnight* program. [29] It found that the majority of those surveyed said that they do not stay overnight at the coast, especially younger people, low-income households, and people of color. The assessment revealed that the only California populations with a majority who stay on the coast overnight are white, aged 55 or more, and/or with a family income greater than $200,000. [30]

In 2018, the people of California demonstrated their support for more public access and recreational opportunities by passing Proposition 68, a $4 billion bond act that will provide funds to create new parks and outdoor access opportunities and enhance existing parks and facilities, many of them located along the coast.

3. If available, briefly list and summarize the results of any additional data or reports on the status or trends for coastal public access since the last assessment.

As discussed above, recent reports document the impact from the loss of affordable overnight accommodations along the coast and the barriers to access that have been created under existing governing/regulating systems and recreational planning efforts. These studies found that there are inequities in the public's ability to access the coast. including:

- Parks Forward – A New Vision for California State Parks, California State Parks, 2015
- Explore the Coast Overnight Assessment, State Coastal Conservancy, 2019

In addition, in October 2016, Commission staff completed a report, *Status Report of Vertical Accessways Acquired by California Coastal Commission Actions from 1973 to 2015 in Northern California – Del Norte, Humboldt, Mendocino, Sonoma, Marin, San Francisco, San Mateo, Santa Cruz and Monterey Counties* on the status of vertical accessways for Northern California. [31] In 2009 the Statewide Coastal Access Program staff prepared the first detailed analysis and report of vertical accessways acquired through Coastal Commission permit actions. The report covered

[29] California Coastal Conservancy. 2019. Explore the Coast Overnight Assessment https://scc.ca.gov/files/2019/10/Explore-the-Coast-Overnight-Assessment-AB4343.pdf
[30] State Coastal Conservancy Statewide Survey, April 2017, Probolsky Research. In *Explore the Coast Overnight: An Assessment of Lower-Cost Coastal Accommodations,* March 2019.
[31] https://documents.coastal.ca.gov/reports/2016/10/w6c-10-2016.pdf

San Diego and Orange Counties and was presented to the Commission in December 2009. In 2011, the report was expanded to add analysis of vertical accessways located in Los Angeles, Ventura, Santa Barbara, and San Luis Obispo Counties and was presented to the Commission in January 2012. The 2016 report completes the analysis statewide. The report concludes that a total of 196 vertical accessways have been acquired through Commission permit actions. Of these, 61% (120 sites) have been opened to the public.

Management Characterization:

1. Indicate if the approach is employed by the state or territory and if there have been any significant state- or territory-level management changes (positive or negative) that could impact the future provision of public access to coastal areas of recreational, historical, aesthetic, ecological, or cultural value.

Significant Changes in Public Access Management

Management Category	**Employed by State or Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
Statutes, regulations, policies, or case law interpreting these	Y	N	Y
Operation/maintenance of existing facilities	Y	N	N
Acquisition/enhancement programs	Y	Y	Y

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
    a. Describe the significance of the changes;
    b. Specify if they were 309 or other CZM-driven changes; and
    c. Characterize the outcomes or likely future outcomes of the changes.

<u>Statutes, regulations, policies or case law</u>

As noted above, the California Legislature and the people of California passed laws and bond acts to help address the loss/lack of affordable and equitable public access opportunities along California's coast. The new laws and bonds also provide policy guidance and funding to improve public access and recreational opportunities to and along the coast for all Californians.

Assembly Bill 1680 – Hollister Ranch Public Access Program (2019)

a) One area of long-standing concern is in Santa Barbara County, which has one of the least accessible shorelines in California. Over 60 miles of county coast are in private or federal ownership with no land side public access. To address part of this problem, the Coastal Act includes policies to open land based public access into the beaches along Hollister Ranch, which is a gated residential subdivision with 8.5 miles of shoreline. The private gates prevent the public from reaching the shoreline (public tidelands) by land (e.g. driving/ walking/bicycling), so the only public access is by sea (e.g. kayak, motorboat, etc.). The Coastal Act specifically requires the Coastal Commission to develop and adopt a Hollister Ranch Coastal Access Program ("Program') that provides for public use through the ranch road to reach the six beaches. The Program was adopted in 1982 but due to opposition by ranch owners, has never been implemented. To address this decades-long blockage of public access, the California Legislature recently approved Assembly Bill 1680 and it was signed into law by the Governor in 2019. This new law requires the Coastal Commission to update the 1982 Program by 2021 and along with the Coastal Conservancy to implement the first steps by 2022. Any attempt to block implementation is subject to Coastal Commission daily penalty fines.
b) While this planning process is not a CZM driven change, the process is designed to lead to expanded public access to this 8.5 miles of coast, which is currently unavailable to almost all Californians.
c) Outcomes: The planning effort to update the Program is now underway through a collaboration of the Coastal Commission, Coastal Conservancy, the State Lands Commission and the California State Parks. This is the first time that four state agencies have come together to sign a formal Collaboration Agreement to work together and take the necessary steps to open land based public access thru the ranch to the shoreline. The public is encouraged to participate in the planning process, and over 1700 citizens – including ranch owners, elected officials, outdoor enthusiasts, academics, tribal leaders, environmental justice advocates, etc. have written to express their opinions about this situation and how to resolve it. The effort will result in an updated Public Access Program that provides expanded public access to the currently inaccessible (to most) portion of the California coast.

Assembly Bill 250 – Lower Cost Visitor Serving Program (2017)

a) This bill directed the State Coastal Conservancy to develop and implement a Lower Cost Visitor Serving Program in coordination with California State Parks and the Coastal Commission. Also included in AB 250 was a provision to require that the Coastal Commission consider the lower cost coastal accommodations assessment when assessing or directing the use of any reclaimed in-lieu fees for any coastal development project. It authorizes the Commission to reclaim in-lieu fee assessed that has not been expended within seven years if the executive director makes a written determination that the original intent of the in-lieu fee will be better utilized.
b) Not a CZM-drive change

c) Outcomes: As cited above, the State Coastal Conservancy recently prepared a plan (Explore the Coast Overnight) in response to this bill, thus the planning work on identifying the problems and selection of suitable sites to help address this issue have begun. This program will result in new or enhanced forms of lower cost accommodation opportunities for public access such as hostels, campgrounds, lower cost motels, etc.

Parks and Water Bond Act of 2018 (Proposition 68)

a) This $4 billion bond act will provide funding to protect the state's water, parks and natural resources. It authorized $218 million for restoration and preservation of existing state park facilities and provided $30 million for lower cost coastal accommodation grants.
b) Not CZM driven
c) Outcomes: New/expanded and enhanced public access and recreational opportunities.

Administrative Penalty Authority for resolving Coastal Act public access violations

a) On July 1, 2014, the California Coastal Act was amended to add Public Resources Code Section 30821, which provided the California Coastal Commission ("Commission") with the authority to impose penalties administratively for public access violations of the Coastal Act. In the first year after enactment, Commission staff developed and began to implement a program to address public access violations of the Coastal Act using Section 30821. The maximum amount of the penalty under Section 30821 is based on 75% of the civil penalties provided for in civil litigation under Section 30820(b), yielding a maximum of $11,250 per day, for each violation.
b) This authority is CZM driven.
c) Outcomes: The administrative penalty authority has greatly enhanced the ability of the Commission to secure compliance with the Coastal Act and to protect the ability of all Californians to access and recreate along the entire stretch of the California coast. Note: although this change occurred during the previous assessment period (2010 – 2014), it was not included in the last assessment. In addition, this change has resulted in the accelerated resolution of significant public access violations thus enhancing improving public access in the state.

Procedural Guidance for Best Management Practices in meeting public access requirements

a) Commission staff produced a procedural guidance document for local government planners. The procedural guidance offers "best management practices" and other detailed information outlining the steps to take to ensure public access requirements of a coastal development permit have been met and that the public access is secured.
b) This was a CZM-driven change using 309 funds.
c) Outcome: Ensure public access is maximized/maintained. If these steps as described are not taken for locally issued permits, then the mitigation required by the local governments as part of those permits will not result in the intended public accessway.

Acquisition/Enhancements

Public Access OTDs Accepted October 2014 through 2019

Accepted and Managed By	Offer to Dedicate (Lateral)	Offer to Dedicate (Vertical)	Offer to Dedicate (Trail)	Offer to Dedicate (Other)	Other Legal Document (Trail)	Total
State Agency	29	0	30	2	1	62
Local Government	3	3	2	1	0	9
Nonprofit	6	2	1	0	0	9
Total	38	5	33	3	1	80

a) During the period of October 2014 through 2019, a total of 80 public access offers to dedicate (OTD) were accepted.
b) For the 80 new sites that were created since October 2014, these sites are a result of conditions imposed by the Commission through the regulatory program, thus they are CZM-driven changes.
c) Outcomes: Each of these sites is now permanently protected for public access purposes and therefore will add to the body of similarly protected lands. Each represents the opportunity for additional new accessways to and along the coast, as well as inland trail segments, once they are built and open for operation. Therefore, each site is a step in increasing the public's ability to get to and use our public lands

See also, *Status Report of Vertical Accessways Acquired by California Coastal Commission Actions from 1973 to 2015 in Northern California* report of vertical accessways, highlighted above in Resource Characterization no. 3. This report was prepared using Section 309 funds.

In addition, the State Coastal Conservancy (Conservancy), as part of California's networked federally approved coastal management program, administers state bond funding for public access projects including for acquisition of land for and enhancement of public access. The Conservancy completed public access projects in this category from 2015 – 2019; however, this information is not included in the assessment. Highlights of significant projects can be found in the Conservancy's annual reports for the years 2015 – 2019.[32] The Conservancy does not have an approved 309 strategy and does not use 309 funds for these projects.

3. Indicate if your state or territory has a publicly available public access guide. How current is the publication and how frequently it is updated?[33]

[32] https://scc.ca.gov/about/accomplishments/
[33] Note some states may have regional or local guides in addition to state public access guides.

Publicly Available Access Guide

Public Access Guide	Printed	Online	Mobile App
State or territory has? (Y or N)	Y	Y	Y
Web address (if applicable)	N/A	www.yourcoast.org	www.yourcoast.org
Date of last update	2014	2019	2019
Frequency of update	As needed	As needed	As needed

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

   High ___X__
   Medium _____
   Low _____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

Maximizing public access and recreation to and along the coast is a core principle and fundamental to the implementation of the Coastal Act and California's coastal management program. It is also a high priority and goal of the Commission's updated 2021 – 2025 Strategic Plan. Public access, and the need to protect and maintain it, was one of the primary themes of early public input on the Coastal Commission Strategic Plan update, received through initial public engagement efforts. Stakeholder feedback on the Commission's Strategic Plan requested a priority be placed on protecting public access from effects of climate change and sea level rise, as well as from privatization. Some requested the Commission provide guidelines to local governments to address local beach access and management issues to maintain public accessways without compromising the ecological integrity of the beaches, as well as increasing equitable access for all people as a vital component to addressing social justice for low income residents and communities of color seeking recreational opportunities. Because of this, public access is a high priority for the 309 strategy.

Marine Debris

Section 309 Enhancement Objective: Reducing marine debris entering the nation's coastal and ocean environment by managing uses and activities that contribute to the entry of such debris. §309(a)(4)

PHASE I (HIGH-LEVEL) ASSESSMENT: *(Must be completed by all states.)*
Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. In the table below, characterize the existing status and trends of marine debris in the state's coastal zone based on the best-available data.

Existing Status and Trends of Marine Debris in Coastal Zone

Source of Marine Debris	Significance of Source (H, M, L, unknwn)	Type of Impact[34] (aesthetic, resource damage, user conflicts, other)	Change Since Last Assessment (↑, ↓, –, unkwn)
Beach/shore litter	H	Aesthetic, Resource Damage, User Conflict, Economic Impact, Habitat Impairment	↓
Land-based dumping	H	Aesthetic, Resource Damage, Economic Impact, Habitat Impairment	↑
Storm drains and runoff	H	Aesthetic, Resource Damage, User Conflict, Economic Impact, Habitat Impairment, Food Web Threats (from microplastics and microfibers)	↑
Land-based fishing (e.g., fishing line, gear)	M	Aesthetic, Resource Damage, User Conflict, Economic Impact, Habitat Impairment	–
Ocean/Great Lakes-based fishing (e.g., derelict fishing gear)	M	Aesthetic, Resource Damage, User Conflict, Economic Impact, Habitat Impairment	–

[34] You can select more than one, if applicable.

Derelict vessels	M	Aesthetic, Resource Damage, User Conflict, Economic Impact	Unknown
Vessel-based (e.g., cruise ship, cargo ship, general vessel)	M	Aesthetic, Resource Damage, User Conflict, Economic Impact, Habitat Impairment	Unknown
Hurricane/Storm	L	Aesthetic, Resource Damage, User Conflict, Economic Impact, Habitat Impairment	Unknown but likely ↑ – Correlates with storm drains and runoff
Tsunami	L	Aesthetic, Resource Damage, User Conflict, Economic Impact, Habitat Impairment	↓

2. If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends or potential impacts from marine debris in the coastal zone since the last assessment.

   The primary method for obtaining information about the quantity and composition of marine debris in California continues to be the annual California Coastal Cleanup Day, during which volunteers collect data on what they pick up. One promising trend is that the pounds of trash picked up per volunteer has dropped slightly but steadily for each of the past three years, which could be an indication of general improvement. Every year, the most frequently found items remain largely the same across the state, although the order in which the items rank can change from year to year and from region to region, or even city to city, depending on what new policies or regulations have been implemented. For example, the state as a whole has seen a steady drop in the number of single-use plastic bags collected on Coastal Cleanup Day since 2010 as a result of numerous cities, and now finally the state as a whole, enacting laws to ban the distribution of single-use plastic bags at grocery and convenience store checkout. We have reached the point that plastic bags, which previously ranked as high as number four on the top ten list of items collected during the cleanup, has dropped out of the top ten entirely. This is highly unusual for the otherwise stable data set that we typically see during our cleanups, and indicates both the effect of the policies themselves and the validity of using Coastal Cleanup Day data as a method of evaluation for the effectiveness of some policies enacted to curb marine debris.

   Regardless of this and a few other discrete examples, the most common items found during cleanups remain largely unchanged, with cigarette butts always accounting for the largest percentage of any single whole item collected, and single-use disposable plastics – mainly food and beverage packaging – accounting for the largest percentage by category.

An emerging issue that has been of concern since our last report has been our growing understanding of the amount and impact of microplastics (currently defined as plastic particles smaller than 5 mm) and microfibers on our marine and aquatic environments. A recent three-year study conducted by the San Francisco Estuary Institute and the 5 Gyres Institute found that microplastics and microfibers are being discharged into San Francisco Bay from both treated wastewater and stormwater, with the amount coming from stormwater averaging 300 times that coming from treated wastewater. Altogether, over 7 trillion microplastics are entering San Francisco Bay annually, an amount far greater than those found in similar studies in other areas. California has already enacted several laws aimed at assessing and establishing a strategy for addressing microplastics, so additional research and reporting will be available during the next assessment.

The body of literature surrounding marine debris has been growing near exponentially since the last assessment. While much of that research is germane to the Commission's work, such as examining the toxicity of plastic debris in marine environments or in marine species, it is not necessarily specific to California.

Management Characterization:

1. Indicate if the approach is employed by the state or territory and if there has been any significant state- or territory-level management changes (positive or negative) for how marine debris is managed in the coastal zone.

Significant Changes in Marine Debris Management

Management Category	**Employed by State/Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
Marine debris statutes, regulations, policies, or case law interpreting these	Y	Y	Y
Marine debris removal programs	Y	Y	Y

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
    a. Describe the significance of the changes;
    b. Specify if they were 309 or other CZM-driven changes; and
    c. Characterize the outcomes and likely future outcomes of the changes.

Marine debris statutes, regulations, policies, or case law

Since the last assessment, there has been increasing attention and policy effort around marine debris and plastic pollution specifically:

Numerous new laws have been enacted to address item-specific elements of marine debris. A sampling of a few would be:

State Legislation

- a) A statewide law, enacted in 2014 and upheld by voter initiative in 2016, to ban the distribution of single-use disposable plastic bags from checkout counters at grocery stores, convenience stores, and pharmacies.
  b) This was not a 309 or other CZM-driven change.
  c) The outcome of this change, as described above, is the dramatic decrease in plastic bag litter found during cleanup events.
- a) In 2019, the state passed a "straws-on-request" law that banned sit-down restaurants from distributing plastic straws unless specifically requested by the customer.
  b) This was not a 309 or other CZM-driven change.
  c)The likely outcome of this change will be the decrease in plastic straw litter found during beach cleanup events.
- a) In 2018, the state passed a law requiring the State Water Resources Control Board to both establish a formal definition of "microplastic" (adopted June 3, 2020) and then establish a standard for a level of microplastic in drinking water that would be considered "safe" (expected by June 2021).
  b) This was not a 309 or other CZM-driven change.
  c) The outcome will be to reduce micro plastic in drinking water.
- a) The number of cities that have now implemented bans of polystyrene foam foodware, whether in government-only facilities or also in retail, has now reached 120, up from ~80 at the time of the last assessment.
  b) This was not a 309 or other CZM-driven change.
  c) The likely outcome of this is to find less expanded polystyrene as debris littering California's shorelines.

Storm Water Program – "Trash Amendments" and Implementation Program

a) In 2017, the State, in cooperation with the federal EPA, finalized the trash amendments to the state's stormwater permitting process, requiring all municipalities to submit permit amendments that address trash traveling through their stormwater systems into receiving water bodies. While there are different "tracks" that the municipalities can pursue to achieve their goals, all affected municipalities must strive to achieve zero discharge of trash to receiving water bodies within the time period of the approved permits, generally within the next 10 to 14 years.
b) This was not a 309 or other CZM-driven change.
c) The outcomes of this change are multiple: increased local action around trash, including local bans on problematic debris items; greater publicity around debris issues; increased

local actions, such as street sweeping, in order to prevent trash from entering the stormwater system; ultimately resulting in cleaner shorelines throughout the state.

Ocean Litter Strategy

a) In 2018, the California Ocean Protection Council completed the revisions and updates of its Ocean Litter Strategy, first adopted in 2009. This strategy is not a law or regulation; it does, however, set a framework for laws, regulations, and actions to be taken by both the State and the marine debris community within California over the next 6 years. The Commission will play a role in enhancing educational efforts around plastic pollution, increasing volunteer-led cleanup efforts, and continuing its role in collaborating with other state agencies on the OPC's Plastic Pollution Steering Committee.
b) This was not a CZM-driven action.
c) The result of this change is to provide a statement about the importance of addressing marine debris and to provide a roadmap for future work around marine debris.

Marine Debris Removal Programs

Since the last assessment, there have been expansions of numerous marine debris removal programs in California:

Coastal Cleanup Day and Adopt-A-Beach programs

a) The Coastal Commission's California Coastal Cleanup Day and Adopt-A-Beach programs continue to grow, reaching new areas (especially within inland California), attracting more volunteers, and inspiring more frequent cleanups. The average number of volunteers at the annual Coastal Cleanup Day has surpassed 70,000 – an increase of an average of 10,000 volunteers from the last assessment. Additionally, in 2017, the number of individual cleanups taking place on Coastal Cleanup Day passed the 1,000 mark for the first time and has remained above that since.
b) This is a CZM-driven change, but no 309 funding was used.
c) The outcome of these additional cleanups and volunteers is cleaner beaches on a more frequent basis, and more Californians educated about the sources and impacts of marine debris.

Boating Clean and Green Program

a) Since 2009, the Commission's Boating Clean and Green Program, a partnership with the California Department of Boating and Waterways, has installed a total of 290 on-shore fishing line recycling stations, located at piers, marinas, boat launch ramps, etc. throughout the state. As of October 2019, 1,846 pounds of fishing line have been collected and recycled. Stretched out, this line would stretch from San Francisco to La Pintada, Panama. In addition, commission staff worked with the Greater Farallones National Marine Sanctuaries to install containers on 5 new charter boats in the San Francisco Bay Area. Since 2016, a total of 17 stations have been installed. As of October 2019, 190 pounds of fishing line have been collected and recycled by the On-Board Fishing Line Recycling Program.
b) This is a CZM-driven change, but no 309 funding was used.

c) The outcome of the growth in these programs has been to prevent large amounts of fishing line, which is an incredibly hazardous material for marine animals to encounter, from becoming marine debris.

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

High	__X___
Medium	_____
Low	_____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

Marine debris continues to grow in importance as a public issue, and information and awareness of the topic has exploded over the past 5 years. Information about the amount of plastic entering the world's oceans each year, the growing awareness of the toxicity of plastic additives and their effect on the food web, and the heightened publicity around the emerging issue of microplastics and microfibers have all contributed to greatly increased public interest in not only the issue of marine debris, but also the call for finding solutions to the problem. In comments on the agency's Strategic Plan, many of the comments received from members of public highlighted the need for the Commission to address problems of ocean pollution and plastics. Given the severity of the issue and public concern, it is a high priority enhancement area for the Commission.

Cumulative and Secondary Impacts

Section 309 Enhancement Objective: Development and adoption of procedures to assess, consider, and control cumulative and secondary impacts of coastal growth and development, including the collective effect on various individual uses or activities on coastal resources, such as coastal wetlands and fishery resources. §309(a)(5)

PHASE I (HIGH-LEVEL) ASSESSMENT:

Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. Using National Ocean Economics Program Data on population and housing,[35] please indicate the change in population and housing units in the state's coastal counties between 2012 and 2017. You may wish to add additional trend comparisons to look at longer time horizons as well (data available back to 1970), but at a minimum, please show change over the most recent five-year period data is available (2012-2017) to approximate current assessment period.

Trends in Coastal Population and Housing Units (includes SF Bay counties)

	2012	2017	Percent Change (2012-2017)
Number of people	28,365,978	29,385,852	3.6%
Number of housing units	10,280,536	10,582,675	2.94%

Of the housing units above, the 15 coastal counties adjacent to the outer coast indicate housing units increased 2.8% to a total of 7,787,551 in the year 2017.

Also see trends demonstrated in the chart below, showing new housing units built annually in California (coastal and non-coastal counties) from 2001-2017. These broad trends show how the cycle of housing unit growth following the Great Recession began around 2009 after the earlier peak in 2004-2005.

[35] www.oceaneconomics.org/Demographics/PHresults.aspx. Enter "Population and Housing" section and select "Data Search" (near the top of the left sidebar). From the drop-down boxes, select your state, and "all counties." Select the year (2012) and the year to compare it to (2017). Then select "coastal zone counties."

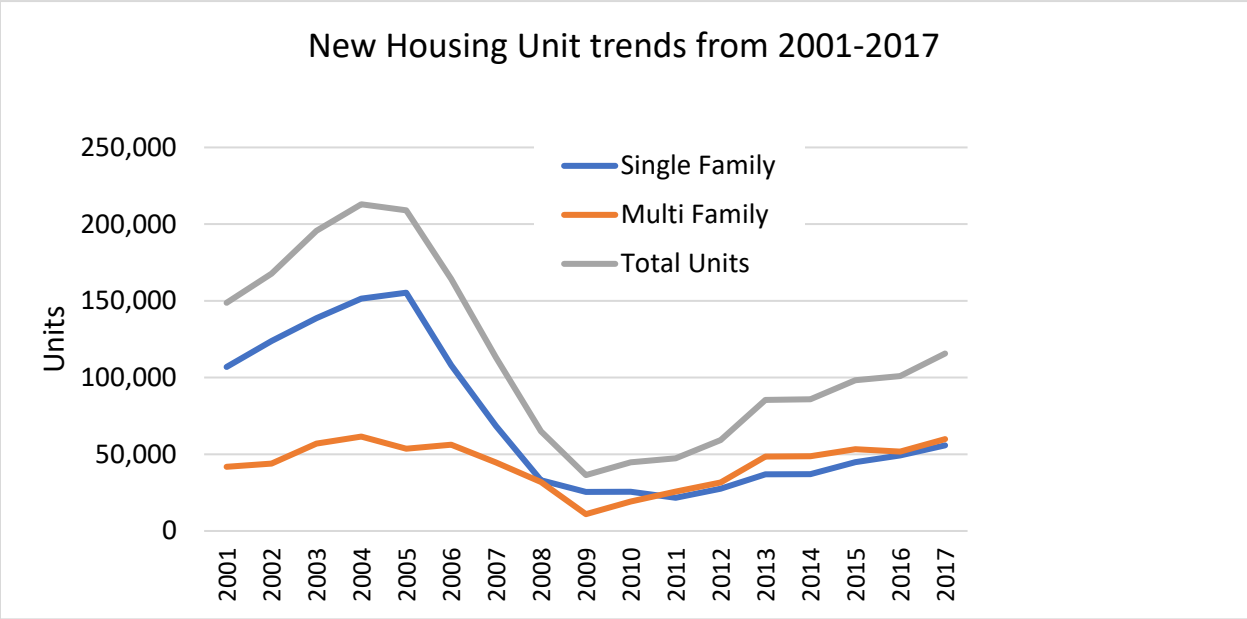


Figure 1. California new housing unit data from 2001-2017. (Source: CIRB (Construction Industry Research Board), a service provided by the California Homebuilding Foundation (CHF), a building permit data source for the State of California)

2. Using provided reports from NOAA's Land Cover Atlas,[36] please indicate the status and trends for various land uses in the state's coastal counties between 1996 and 2016. You may use other information and include graphs and figures, as appropriate, to help illustrate the information. Note that the data available for the islands may be for a different time frame than the time periods reflected below. In that case, please specify the time period that the data represent. Also note that Puerto Rico currently only has data for one time point so will not be able to report trend data. Instead, Puerto Rico should just report current land use cover for developed areas and impervious surfaces.

Because the Land Cover Atlas was not available for the time period 1996-2016 at the time of this assessment, the NLCD datasets from 2001 to 2016 were used to explore trends. These data sets were created using a more consistent method, so they were chosen for comparison. Since 2001, there has been significant forested cover loss in coastal counties, but a gain in scrub/shrub cover and developed land. The timeframe of 2001-2016 encompasses a development growth period that peaked in 2005. If 1996 datasets were analyzed, considerably more area would likely be shown to convert to developed uses, demonstrating the late 90s and early 2000s housing boom that preceded the Great Recession.

[36] www.coast.noaa.gov/digitalcoast/tools/lca.html. Note that the 2016 data will not be available for all states until later Summer 2019. NOAA OCM will be providing summary reports compiling each state's coastal county data. The reports will be available after all of the 2016 data is available.

Distribution of Land Cover Types in Coastal Counties

Land Cover Type	Land Area Coverage in 2016 (Acres)	Gain/Loss Since 2001 (Acres)*
Developed, High Intensity	1,088,034	70,225
Developed, Low Intensity	602,643	8,237
Developed, Open Space	1,018,782	725
Grassland	3,267,930	57,624
Scrub/Shrub	6,923,423	334,630
Barren Land	411,981	-8,003
Open Water	420,064	-10,847
Agriculture	766,883	43,385
Forested	5,712,394	-498,269
Woody Wetland	91,078	935
Emergent Wetland	151,875	1,357

*Note: Data Source was https://www.mrlc.gov/national-land-cover-database-nlcd-2016. National Land Cover Database (NLCD) datasets for 2001 and 2016 were used due to unavailability of Land cover atlas for California at the time of analysis. The coastal counties include outer coast counties and only the SF Bay area counties of San Mateo, San Francisco, Marin, and Sonoma.

3. Using provided reports from NOAA's Land Cover Atlas,[37] please indicate the status and trends for developed areas in the state's coastal counties between 1996 and 2016 in the two tables below. You may use other information and include graphs and figures, as appropriate, to help illustrate the information. Note that the data available for the islands may be for a different time frame than the time periods reflected below. In that case, please specify the time period the data represents.

   According to the National Land Cover Database (NLCD), which was selected to compare the 2016 dataset with one that was constructed using similar methods, the percent of land area developed in coastal counties increased from 12.9% to 13.9% from 2001 to 2016. The percent net change for developed land in the 15-year period from 2001-2016 reflects a low increase (< 1%) in developed area. Developed features are made up of impervious surfaces, but also include the grasses that surround these man-made impervious features. Four categories of NLCD comprise the "developed" type of land use:

   1. Developed, High Intensity - Each pixel comprises 80 to 100 percent concrete, asphalt, or other constructed materials. Vegetation, if present, occupies less than 20 percent

[37] www.*coast.noaa.gov/digitalcoast/tools/lca.html*. Note that the 2016 data will not be available for all states until later Summer 2019. NOAA OCM will be providing summary reports compiling each state's coastal county data. The reports will be available after all of the 2016 data is available.

of the landscape. This class includes heavily built-up urban centers and large constructed surfaces in suburban and rural areas with a variety of land uses.

2. Developed, Medium Intensity - Each pixel comprises a mixture of constructed materials and vegetation or other land cover. Constructed materials account for 50 to 79 percent of total area. This class commonly includes multi- and single-family housing areas, especially in suburban neighborhoods, but may include all types of land use.
3. Developed, Low Intensity - Each pixel comprises a mixture of constructed materials and substantial amounts of vegetation or other land cover. Constructed materials account for 21 to 49 percent of total area. This class commonly includes single-family housing areas, especially in rural neighborhoods, but may include all types of land use.
4. Developed, Open Space - Each pixel comprises a mixture of some constructed materials, but mostly managed grasses or low-lying vegetation planted in developed areas for recreation, erosion control, or aesthetic purposes. Constructed surfaces account for less than 20 percent of total land cover.

The use of these categories could mask how lower density uses are developed and redeveloped into larger footprints or densified, as well as miss the transformation due to lack of resolution. The NLCD dataset is based on 30m pixels (medium resolution) and may not capture small areas accurately.

How Land Use Is Changing in Coastal Counties*

Land Cover Type	**Areas Lost to Development Between 2001-2016** (Acres)
Barren Land	10,542
Emergent Wetland	482
Woody Wetland	248
Agriculture	13,668
Scrub/Shrub	17,277
Grassland	35,499
Forested	936
Open Water	535

* Data source: NLCD 2016 and NLCD 2001. Note that the NLCD dataset (30 m resolution) is not C-CAP high-resolution (1-5 m). The areas lost to development were extracted for the 15 outer coast counties of California.

It is important to note that accurately mapping diverse land cover class changes in a large region using satellite imagery is difficult. In addition, separating changes between land cover condition and land cover conversion over large and diverse landscapes often requires special treatment and strategies beyond the conventional spectral-only change detection. This land use change table only reflects broad trends between 2001 and 2016. It indicates grassland and scrub/shrub uses in coastal counties have been transformed into developed areas the most over the 2001-2016 period.

4. Briefly characterize how the coastal shoreline has changed in the past five years due to development, including potential changes to shoreline structures such as groins, bulkheads and other shoreline stabilization structures, and docks and piers. If available, include quantitative data that may be available from permitting databases or other resources about changes in shoreline structures.

   - Hard armoring structures such as seawalls and revetments have been the typical historical response to coastal erosion. In 1971, the US Army Corps of Engineers estimated that 27.1 miles of armoring protected the California shoreline.[38] By 1998, after the damaging El Nino events of 1977–78, 1982–83, and 1997–98, estimates of armoring grew to 110 miles (Adelman and Adelman, 2013, as reported in 2019 by Griggs and Patsch)[39], though the Coastal Commission's current 2019 estimate for the outer California coast is approximately 123.5 miles (Mapping Unit, California Coastal Commission, Coastal Armoring Database, June 2019).[40]

   - Approximately 4.15% (representing 470 of 11,324 items) of CDPS, Appeals, EPs, and Post-Cert permits from 2015 to June 2019 reviewed by the Commission were for coastal armoring or armoring-related projects. Of just CDPs and Appeals, 6.1% of 2015-2019 items were for coastal armoring or armoring-related projects.

5. Briefly summarize the results of any additional state- or territory-specific data or reports on the cumulative and secondary impacts of coastal growth and development, such as water quality, shoreline hardening, and habitat fragmentation, since the last assessment.

   Cumulative and secondary impacts of coastal growth and development can have adverse impacts on water quality, public access, and sensitive habitats (e.g. ESHA, wetlands and beaches). Polluted ocean waters pose a significant health risk to millions of ocean users in California. Storm drain runoff is typically the greatest source of pollution to local beaches, potentially contaminated with motor oil, animal waste, pesticides, yard waste and trash. After a rain, indicator bacteria densities often far ex[41] assessed the average water quality grade for 500 California beaches and found only 54% of beaches got an A or B grade during wet weather. This is an eight percent decrease from the state's five-year average. However, the summer monitoring indicated 94% of the assessed California beaches had grades of A or B.

[38] USACE (U.S. Army Corps of Engineers) and Dames & Moore, 1971. National Shoreline Study: California Regional Inventory. San Francisco, California: Department of Defense, USACE, South Pacific Division, 106p.
[39] Adelman, K. and Adelman, G., 2013. California Coastal Records Project. https://www.californiacoastline.org Griggs, G. and Patsch, K., 2019. The protection/hardening of California's coast: Times are changing. *Journal of Coastal Research*, 35(5), 1051–1061. Coconut Creek (Florida), ISSN 0749-0208.
[40] Mapping Unit, California Coastal Commission, Coastal Armoring Database, June 2019
[41] https://healthebay.org/wp-content/uploads/2019/06/BRC_2019_FINAL.pdf, Assessed 2/4/2020.

Hard armoring, such as seawalls and revetments, reflect wave energy and constrain natural landward migration of the shoreline, generally leading to the loss of recreational beach area, impacts on adjacent shore, and negative effects on ecological resources. In a literature review Dugan et al. (2018) found a secondary effect of hard armoring is that when sea level rises, nearly all beaches will shrink.[42] A 2017 USGS study found that Southern California could lose up to two-thirds of its beaches by 2100, if sea level rises 3 to 6 feet.[43]

Since the last assessment, Coastal Commission staff' initiated work on developing a California Coastal Armoring Database (CCAD), a comprehensive statewide geospatial inventory of shore parallel armoring structures designed to help answer key management questions related to the impacts of armoring on the shoreline. The CCAD will assist research and planning at the local, regional and state level by providing data for hazard risk assessments, sea level rise planning, tracking armoring projects, and public access assessments. The database will allow enhanced tracking of armoring activity by including permit history, allowing staff to better monitor and anticipate changes to public access and coastal resources. While no 309 funds were used for the database, it is CZM program driven. The outcome of this work will ensure more efficient and effective use of data on evaluating the cumulative impact of armoring for land use policy analysis and development of sea level rise adaptation strategies that can address beach loss.

In addition to loss of beach due to hard armoring, cumulative effects of development can have adverse effects on vulnerable coastal ecosystems (such as wetlands, riparian areas, coastal sage scrub, chaparral, grasslands, and woodlands) and ecosystem functions (such as carbon sequestration, water purification, habitat provision, and pollination). A 2018 study found that natural lands in California will experience more exposure to sea level rise than agricultural or developed areas.[44] These vulnerable habitats need space for coastal processes such as erosion, accretion, transgression, and transition to maintain their health and ability to provide ecosystem functions. Improving sediment delivery and coastal processes that nourish shorelines and wetlands, for example, could improve resilience to sea level rise and maintain area over time.

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[42] Dugan, J.E., Emery, K.A., Alber, M. *et al.* Generalizing Ecological Effects of Shoreline Armoring Across Soft Sediment Environments. *Estuaries and Coasts* **41,** 180–196 (2018). https://doi.org/10.1007/s12237-017-0254-x

[43] Vitousek, S., Barnard, P. L., Limber, P., Erikson, L., & Cole, B. (2017). A model integrating longshore and cross-shore processes for predicting long-term shoreline response to climate change. Journal of Geophysical Research: Earth Surface, 122(4), 782-806.

[44] Heady, W. N., B. S. Cohen, M. G. Gleason, J. N. Morris, S. G. Newkirk, K. R. Klausmeyer, H. Walecka, E. Gagneron, M. Small. 2018. *Conserving California's Coastal Habitats: A Legacy and a Future with Sea Level Rise*. The Nature Conservancy, San Francisco, CA; California State Coastal Conservancy, Oakland, CA. 143 pages. https://www.conservationgateway.org/ConservationPractices/Marine/crr/library/Documents/TNC_SCC_CoastalAssessment_lo%20sngl.pdf

Additional research, data collection, monitoring, and focal investigations are needed to better inform these types of adaptation strategies.

Management Characterization:

1. Indicate if the approach is employed by the state or territory and if there have been any significant state-level changes (positive or negative) in the development and adoption of procedures to assess, consider, and control cumulative and secondary impacts of coastal growth and development, including the collective effect on various individual uses or activities on coastal resources, such as coastal wetlands and fishery resources, since the last assessment.

Significant Changes in Management of Cumulative and Secondary Impacts of Development

Management Category	**Employed by State or Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
Statutes, regulations, policies, or case law interpreting these	Y	N	Y
Guidance documents	Y	Y	Y
Management plans (including SAMPs)	Y	Y	Y

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
    a. Describe the significance of the changes;
    b. Specify if they were 309 or other CZM-driven changes; and
    c. Characterize the outcomes or likely future outcomes of the changes.

<u>Statutes, regulations, policies, or case law</u>

New Accessory Dwelling Unit Legislation[45]

a) New state requirements regarding local government regulation of "accessory dwelling units" (ADUs) became effective on January 1, 2017. The creation of new ADUs in existing residential areas is a strategy for increasing the supply of lower-cost housing in the coastal zone in a way that avoids significant adverse impacts on coastal resources.
b) These were not CZM driven changes.

[45] https://www.hcd.ca.gov/policy-research/AccessoryDwellingUnits.shtml
https://documents.coastal.ca.gov/assets/rflg/CCC_guidance_memo_re_ADUs.pdf

c) An expected future outcome is an increased supply of lower cost housing throughout California, including in the coastal zone.

New Lower Cost Coastal Accommodation Program

a) AB 250 passed in 2017 requires the State Coastal Conservancy to develop and implement a Lower Cost Coastal Accommodations Program. The Program's purpose is to improve the availability of lower-cost accommodations within one and one-half miles of the coast in response to the cumulative impact of loss of low to moderate cost accommodations in coastal areas. The new law also authorizes the Coastal Commission to reclaim any in-lieu fee paid by developers not expended within seven years of its deposit and reassign the fee for use for low-cost coastal accommodation and visitor-serving facilities.
b) This was a CZM driven change.
c) Expected outcomes include increased lower cost accommodation availability.

Environmental Justice Amendments to Coastal Act and Environmental Justice Policy

a) In 2016, AB 2616 was enacted to amend the state's Coastal Act, giving the Commission authority to specifically consider environmental justice when making coastal permit decisions. The bill also required "one of the members of the commission appointed by the Governor to reside in, and work directly with, communities in the state that are disproportionately burdened by, and vulnerable to, high levels of pollution and issues of environmental justice." To implement this new authority and to provide clarity to Commissioners, staff, members of the public and affected communities its application, Commission staff developed an Environmental Justice (EJ) Policy. The EJ Policy was adopted by the Commission on March 8, 2019. The policy contains a policy statement, a statement of EJ principles and a suite of committed actions to ensure implementation of the policy. Priorities include addressing environmental justice in climate change, coastal access, housing, tribal concerns, working with local government, and with accountability, transparency, and public participation.

   In terms of cumulative and secondary effects, with respect to coastal hazards from of climate change/sea level rise, environmental justice communities will likely face disproportionate impacts that may exacerbate existing environmental injustices. Some of these impacts include disproportionate burdens such as increased inland temperatures causing public health imperatives for access to cooler coastal temperatures; heat exacerbating poor air quality; sea level rise, coastal erosion, and some adaptation measures, such as sea walls reducing access to the coast and ocean and coastal recreation areas for all residents; lower-income residents and renters more likely to be displaced by coastal impacts such as flooding; and low-income communities more vulnerable to water quality and supply issues that can result from climate impacts like seawater intrusion, contamination from extreme storm events, and drought. There are also cumulative effects of development with respect to public access in terms of barriers to public access and other social-economic factors limiting public use and recreation along the coast.
b) These were CZM driven changes.

c) The outcome of this change is that Commission will be required to analyze how its decisions will affect all communities and to ensure the equitable distribution of benefits of Commission decisions to all members of the public. The effect of this policy change will span all coastal resources and enhancement areas.

Senate Bill 1, the Road Repair and Accountability Act of 2017 (SB 1)

a) Senate Bill 1, the Road Repair and Accountability Act of 2017, was signed into law on April 28, 2017. This legislative package invests $54 billion over the next decade to fix roads, freeways and bridges in communities across California and puts more dollars toward transit and safety. Funds are split equally between state and local investments. Some Caltrans SB1 Grants will be used to advance adaptation planning for coastal zone projects that strengthen the resilience of transportation assets, natural and urbanized areas, and vulnerable community members.
b) These were not CZM driven changes, but CZM agencies and local government partners will be using funds on adaptation projects.
c) An expected future outcome is an increased number of projects funded to strengthen the climate change resilience of transportation assets in the coastal zone.

<u>Guidance Documents</u>

a) Local Coastal Programs are a key mechanism to control cumulative and secondary impacts of coastal growth and development. Significant guidance and assistance were provided in order to enhance the LCP Program and to ensure LCP updates addressed emerging issues and new information. Many of these policy guidance documents are highlighted in Phase I Assessments for SAMP and Coastal Hazards. Guidance documents below were all designed to share best practices and to provide local coastal governments suggested policy and implementation provisions to incorporate into Local Coastal Programs.

- LCP Update Guide: The guidance addresses new and emerging climate information on implementing key policy issues under the Coastal Act, with 2017 updates to address coastal hazards, water quality, and public access.
    i. – Part I - Section 8. Coastal Hazards, 2/14/2017.[46] Note that coastal hazards guidance is also described in the Coastal Hazards Assessment Section
    ii. LCP Update Guide – Part I - Section 3. Water Quality, 3/29/17[47]
    iii. LCP Update Guide – Part I - Section 1. Public Access, 4/4/17[48]
- The Model LCP Water Quality Guidance[49] provides model Local Coastal Program (LCP) policies and standards that are appropriate for updating the water quality elements of an LCP's Land Use Plan (LUP) and Implementation Plan (IP) to address development that

[46] https://www.coastal.ca.gov/rflg/lcp-planning.html
[47] https://documents.coastal.ca.gov/assets/lcp/LUPUpdate/LUP_Update_Guide_Ch_3_Water_Quality_UPDATED_3.29.17_Final.pdf
[48] https://documents.coastal.ca.gov/assets/lcp/LUPUpdate/LUP_Guide_Update_1_Public_Access_updated_4.4.17_FINAL.pdf
[49] https://www.coastal.ca.gov/water-quality/local-gov/

requires a Coastal Development Permit and has the potential for adverse water quality or hydrology impacts to coastal waters.

- The California Coastal Commission Sea Level Rise Policy Guidance was adopted in 2015 and updated in 2018, providing guidance for local governments in developing LCPs and in reviewing coastal development permits.
- Memos to help local governments understand how to carry out their Coastal Act obligations while also implementing state requirements regarding the regulation of accessory dwelling units ("ADUs") and junior accessory dwelling units ("JADUs").
- The Model LCP Water Quality Guidance provides model Local Coastal Program (LCP) policies and standards that are appropriate for updating the water quality elements of an LCP's Land Use Plan (LUP) and Implementation Plan (IP) to address development that requires a Coastal Development Permit and has the potential for adverse water quality or hydrology impacts to coastal waters.
- Short-term rental guidance and updated Commission action chart that identifies the general regulatory approach and key regulatory parameters of relevant Local Coastal Program Amendments.
- Training modules that detail the history and importance of the Coastal Management Program and that describe the Coastal Act requirements and protocols for local governments to record legal document related public access and open space.
- Cannabis guidance for local governments to inform and assist coastal jurisdictions in developing ordinances to address cannabis cultivation and other cannabis-related development activities.
- Agricultural guidance documents prepare for local governments and posted on the Commissions website including information related to supplemental land uses, managing public access in agricultural areas, agriculture as a means of carbon storage, and a detailed Informational Guide for the Permitting of Agricultural Development (2017).
- Procedural guidance for meeting public access requirements (see Phase I Public Access).
- Development and adoption of the Commission's Environmental Justice Policy integrates the principles of environmental justice, equality, and social equity into all aspects of the Commission's program. The policy can be used as a guide for local governments understanding of environmental justice issues to be included in future LCPs but more detailed guidance for local governments will be developed as described in the Implementation Section of the environmental justice policy.
- Procedural guidelines for maintaining a digital library of certified LCPs.

b) All of these were CZM driven changes. Section 309 funds were used for all guidance documents except for water quality and environmental justice

c) The outcomes from guidance contained in documents above support updated LCP policies and implementing regulations through LCP Amendment certified by the Commission.

Caltrans and Coastal Commission Plan for Improved Agency Partnering

a) Caltrans and the Coastal Commission developed a framework to guide each agency in fostering the integration of our respective planning procedures, addressing pressing coastal management issues such as climate change and ensuring positive communication and quick resolution of conflicts as they might arise. In 2015, management from Caltrans and the Commission designated an Integrated Planning Team (IPT) to continue refinements to the working partnership. The IPT identified ways to improve communication and coordination during the earlier phases of planning processes, with the expectations that subsequent transportation projects will reflect LCP and Coastal Act policies in ways that will streamline their regulatory reviews and advance shared goals from both agencies Strategic Plans. In December 2016, the IPT released the Plan for Improved Agency Partnering that contained recommendations to increase and improve coordination and communication between Caltrans and the Coastal Commission. [50]
b) These were CZM driven changes. No Section 309 were used.
c) The Agreement does not change or supersede official policy, guidance, or regulations, but may signal a need to update policies and/or guidance to better reflect partnering commitments and desired outcomes. The Commission will continue to support adaptation planning projects and collaborate with Caltrans to support efforts aimed at increasing sustainability and contending with climate change issues, particularly in relation to sea level rise, as well as to meet multimodal access goals, focusing on the completion of the California Coastal Trail. This Plan is timely, as Caltrans prepares to spend billions of new dollars on transportation-related activities that will be provided by new legislation (SB 1).

Administrative Guide for Use of Compendium of Coastal Development Permit (CDP) Sample Special Conditions, and updated Compendium of CDP Sample Conditions

a) The updated compendium and the administrative guide for use provides Commission analysts a clear and consistent source of information for the application of special conditions that can be used for preparing recommendations to the Commission for action on permit applications that raise similar issues. The document updates conditions frequently used in regulatory permit review; however, it is not regulation.
b) This was a CZM driven change using Section 309 funding.
c) Benefits include more consistent state-wide application of permit conditions, simplified language and improved applicant compliance with permit conditions.

Management Plans

See discussion in SAMP section for details on new or updated LCPs and in Ocean Resources for regional sediment management plans.

[50] https://documents.coastal.ca.gov/assets/caltrans/Approved-Plan-for-Improved-Agency-Partnering-First-Edition.pdf

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

High	_____
Medium	__x___
Low	_____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

Cumulative impacts of development affect coastal resources, including public access. Most notably for the assessment period are the cumulative impacts of shoreline development and for hard armoring that is used to protect structures from flooding and erosion. Members of public and other stakeholders raised concerns about the impact shoreline development during early engagement on the Commission's 2021-2025 Strategic Plan, though with a wide range of proposed policy solutions. The Cumulative and Secondary Impacts enhancement area has considerable overlap with the Special Area Management Plan and Coastal Hazards sections, which are considered high priority. Thus, many of the emerging issues related to cumulative and secondary impacts of development will be covered in these higher priority enhancement sections.

Special Area Management Planning

Section 309 Enhancement Objective: Preparing and implementing special area management plans for important coastal areas. §309(a)(6)

The Coastal Zone Management Act defines a Special Area Management Plan (SAMP) as "a comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies; standards and criteria to guide public and private uses of lands and waters; and mechanisms for timely implementation in specific geographic areas within the coastal zone. In addition, SAMPs provide for increased specificity in protecting natural resources, reasonable coastal-dependent economic growth, improved protection of life and property in hazardous areas, including those areas likely to be affected by land subsidence, sea level rise, or fluctuating water levels of the Great Lakes, and improved predictability in governmental decision making."

PHASE I (HIGH-LEVEL) ASSESSMENT: *(Must be completed by all states and territories.)*
Purpose: To quickly determine whether the enhancement area is a high priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. In the table below, identify geographic areas in the coastal zone subject to use conflicts that may be able to be addressed through a special area management plan (SAMP). This can include areas that are already covered by a SAMP but where new issues or conflicts have emerged that are not addressed through the current SAMP.

Geographic Area	Opportunities for New or Updated Special Area Management Plans
	Major conflicts/issues
Coastal zone	33 LCPS remain to be certified in the coastal zone. Approximately 50 Areas of Deferred Certification remain to be incorporated into a certified LCP. Of the 93 certified LCP segments, 34 have not been updated in any part; 42 have been updated only in part and may need future comprehensive updates to address new information and changed conditions.

Within California's Coastal Management Plan (CCMP), Local Coastal Programs (LCPs) are considered the equivalent of the CZMA Section 309(a)(6) definition of *Special Area Management Plans (SAMPs)* for important coastal areas. Under the California Coastal Act, local

governments are required to complete LCPs which, as defined by the Coastal Act, should include: (a) land use plans, (b) zoning ordinances, (c) zoning district maps, and (d) within sensitive coastal resources areas, other implementing actions that are sufficiently detailed to indicate the kinds, location, and intensity of land uses, the applicable resource protection and development policies and, where necessary, a listing of implementing actions. Once certified by the Coastal Commission, LCPs allow primary coastal permitting authority to shift from the Coastal Commission to the local government. In addition, the Commission continues to review and maintain special area plans for the four industrial ports, public works planning for special districts, including important State Park units, long range development plans for university properties, plans for the siting of energy facilities, and review of management plans for federal properties.

An Area of Deferred Certification (ADC) refers to a geographic area that is eligible for inclusion within a local government's Local Coastal Program (LCP) but was not certified as part of the original certification review or through any subsequent amendments of the LCP. This could occur if the planning and management problems for that geographic area were especially difficult to resolve. Deferring certification may allow more time to resolve such problems while certifying and delegating most permit authority over most of the jurisdiction under a certified LCP. But until an LCP is certified for an ADC, the Commission retains permit authority in that area.

LCPs that have been certified or updated in whole or in part have incorporated newer policies and development standards to reflect new state laws, land use planning trends, newer scientific information (many have incorporated policies regarding sea level rise for example), changed conditions, and new and emerging issues. As a result, they are better equipped to guide review of development proposals in a manner consistent with the California Coastal Act going forward for the next decade.

2. If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends of SAMPs since the last assessment.

Commission staff annually prepare the LCP Status Report.[51] The report describes status of LCPs overall and summarizes significant LCP actions throughout the fiscal year. The Commission also has an ongoing responsibility to monitor LCP implementation through its post-certification monitoring activities. These efforts include reviewing notices of pending local hearings and pending non-hearing actions; reviewing notices of final local action; and providing notice of appealable development to the Commission. Commission staff review of local coastal development permit items provide an opportunity to verify if the local jurisdiction is carrying out coastal permitting consistent with the certified LCP. Significant inconsistencies or high number of permit appeals would trigger consideration of whether an update to an LCP is needed.

[51] https://documents.coastal.ca.gov/assets/rflg/LCPStatusSummaryChart_October%202020.pdf

More specific to status and trends in LCPs, the Commission held joint public workshops in 2015 and 2019 with the members of the League of Cities and California State Association of Counties to allow local government officials to discuss coastal city and county issues and concerns. In 2019, topics focused on LCP planning related to short-term rentals, sea level rise, and the LCP development process. Local governments provided input regarding the complexity of developing LCPs (and LCP amendments) that balance and manage local priorities while protecting coastal resources consistent with the Coastal Act.[52] Input from local government representatives requested that the Commission prioritize partnerships and collaborations between the Commission and local governments, engagement in the public process, additional guidance and guidelines to deal with complex coastal planning issues, maintaining digital LCPs and providing model language.

Following the July 2019 Local Government Workshop, a Local Government Working Group consisting of representatives from the California State Association of Counties, the League of California Cities, and a Coastal Commission subcommittee (Commissioners Groom and Wilson) was formed to support advancing coastal zone sea level rise planning efforts. This group developed a joint statement to serve as a foundation for collective efforts on sea level rise adaptation planning going forward. [53] The Joint Statement focuses specifically on what the three entities which make up the working group can do to address sea level rise related to LCP policy development, adaptation planning, and project decision making.

Status and trends discussed in the Cumulative and Secondary Impacts Phase I Assessment are also applicable to SAMP/LCPs.

Management Characterization:

1. Indicate if the approach is employed by the state or territory and if there has been any significant state- or territory-level management changes (positive or negative) that could help prepare and implement SAMPs in the coastal zone.

Management Category	**Employed by State or Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
SAMP policies, or case law interpreting these	Y	Y	Y
SAMP plans	Y	Y	Y

[52] Background Report for the July 12, 2019 Local Government Workshop on Short Term Rentals and Sea Level Rise Planning and Adaptation (F2-7-2019-report.pdf (ca.gov)) and City/County Platform Paper (F2-7-2019-citycountyplatformpaper.pdf (ca.gov))

[53] Briefing and consideration of adopting the Local Government Working Group "Joint Statement on Adaptation Planning", CCC Staff Report (w6d-11-2020-report.pdf (ca.gov))

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
    a. Describe the significance of the changes;
    b. Specify if they were 309 or other CZM-driven changes; and
    c. Characterize the outcomes or likely future outcomes of the changes.

SAMP Policies or Case Law

SAMP Policies

See Cumulative and Secondary Impacts Phase I Assessment for a list of policy guidance documents released since 2015 that provide policy recommendations for address emerging issues and procedural guidelines in developing new or updating LCPs. The policy guidance and procedural guidelines are considered policy changes for Commission staff and local governments with information that contributes to effective implementation of the Coastal Act through LCPs.

Case Law

a) Describe the significance of the changes;
There were several legal cases which had implications for the LCP planning program.

Greenfield v. Mandalay Shores Community Assn., 21 Cal. App. 5th 896 (2019). The significance is that the case supports the right and duty of the Coastal Commission to regulate restrictions on short-term vacation rentals through LCPs.

San Diego Unified Port Dist. v. California Coastal Commission, 27 Cal. App. 5th 1111 (2018). The significance is that the case upholds the Coastal Commission's ability to require lower-cost overnight accommodations as part of local plans (here, a Port Master Plan).

Beach & Bluff Conservancy v. City of Solana Beach, 28 Cal. App. 5th 244 (2018). The significance is that the case held that LCP policies that prohibit future shoreline armoring do not constitute a facial, unconstitutional taking.

b) These were not 309 or other CZM-driven changes; and
c) The outcome of these changes overall clarified and strengthened the LCP program.

SAMP Plans

a) Describe the significance of the changes
New certified LCPs became effective for the City of Newport Beach and City of Pacific Grove over the assessment period. More cities and counties have either LUP or IP updates initiated, submitted, or approved. Since 2015, the Commission acted on approximately 23 LCP

Amendments (from 15 jurisdictions) that updated Local Coastal Program Land Use Plans (LUPs) or Implementation Plans (IPs) (i.e. zoning ordinances that implement the LUP policies) in whole or in part to reflect new information and changed conditions. The table below lists these amendments, focusing on ones that were designed to reduce future damage from hazards and to develop or update sustainable development ordinances, policies and plans.

In addition, the comprehensive and partial updates often addressed visitor serving accommodations, public access and transit-oriented planning, general land use changes to concentrate density in existing developed areas that are located outside of hazardous areas, review processes and procedures, and changes needed to addressed new state laws such as related to accessory dwelling units, affordable housing, density bonuses, and reasonable accommodation. Many additional LCP Amendments were acted on, but these were primarily project-driven, minor, or limited, topic amendments that did not represent updates in whole or in significant part.

Comprehensive or Partial LCP Updates and Other Significant Amendments (including Master Plans & Hazards Updates) 2015-2019

Jurisdiction	LCPA Number/ Name	Effective Certification Date
Mendocino County	LCP-1-MEN-14-0840-1 (Mendocino Town Plan Update)	11/8/2017
Marin County	LCP-2-MAR-19-0003-1 (Marin IP Partial Update)	2/6/2019
San Francisco City / County	LCP-2-SNF-18-0028-1 (Western Shoreline Area Plan)	5/10/2018
City of Pacific Grove	LCP-3-PGR18-0093-1 (Comprehensive LUP Update)	3/11/2020
City of Santa Cruz (Partial Update)	LCP-3-STC-17-0016-1-Part C (Zoning Clean up)	6/7/2017
City of Santa Cruz	LCP-3-STC-17-0073-2-Part A (Downtown Plan)	3/8/2018
Santa Barbara County	LCP-4-STB-14-0836-2-Part A (Summerland Community Plan Update)	6/16/2016
Santa Barbara County	LCP-4-STB-17-0048-1 (Eastern Goleta Valley Community Plan)	12/19/2017
Santa Barbara County	LCP-4-STB-18-0039-1-Part B (Gaviota Coast Plan)	11/7/2018
City of Santa Barbara	LCP-4-SBC-18-0062-1 (Comprehensive LUP Update)	8/9/2019
Ventura County	LCP-4-VNT-16-0033-1 (Phase II A Update)	5/31/2017
Ventura County	LCP-4-VNT-16-0069-2 (Phase II B Update)	6/26/2017

Jurisdiction	LCPA Number/ Name	Effective Certification Date
City of Newport Beach	LCP-5-NPB-15-0039-1 (Major)	1/13/2017
City of Huntington Beach	LCP-5-HNB-18-0046-1 (Windward Specific Plan)	12/12/2018
City of San Clemente	LCP-5-SCL-16-0012-1 (Comprehensive LUP Update)	8/10/2018
City of Oceanside	LCP-6-OCN-18-0069-2 Zoning Ordinance Update - Base Zoning Districts	11/14/2019
City of Carlsbad	LCP-6-CAR-15-0034-2 General Plan Update/LCP Map Revisions	8/11/2016
City of Carlsbad	LCP-6-CVR-18-0070-1 Carlsbad Village & Barrio Master Plan	10/16/2019
San Diego County	LCP-6-SDC-17-0015-1 (Major)	12/13/2018
City of San Diego	LCP-6-OCB-15-0006-1 Ocean Beach Community Plan Update	1/14/2016
City of San Diego	LCP-6-SAN-16-0043-3 9th Update	11/8/2016
City of San Diego	LCP-6-TJN-17-0029-1 San Ysidro Community Plan Update	12/13/2017
City of San Diego	LCP-6-CCP-18-0094-4 Midway-Pacific Highway Community Plan Update	3/7/2019

Since 2015 when the last 309 Assessment was compiled, the Commission has acted on seven special area management plans through the federal consistency review process, either as a "consistency determination (CD)" or "negative determination (ND)" with respect to the proposed plan being consistent with policies of the coastal management program. These management plans addressed the protection of coastal resources and public access on federal and state parklands and federal military reservations. They are:

- Department of Veterans Affairs (VA) Long Range Development Plan for the Veterans Affairs Center in the Richmond District of San Francisco, Fort Miley Campus (CD-0003-15)
- BLM Trinidad Head Management Plan, Trinidad, Humboldt County (CD-0007-16
- Comprehensive Conservation Plan for the Guadalupe-Nipomo Dunes National Wildlife Refuge, San Luis Obispo County (ND-0020-16)
- Redwood NP/Santa Monica Mountains NRA Invasive Plant Management Plan (ND-0029-17)
- Bolsa Chica Lowlands Sediment Management Plan (ND-0030-17)
- Beach Management Plan for Vandenberg Air Force Base (CD-0004-18)
- Trail Management Plan at Cabrillo National Monument, San Diego County (ND-0014-19)

Also, not reported in the previous assessment, the Commission concurred with the consistency certification for and certified the North Coast Corridor Public Works Plan (PWP) and

Transportation and Resource Enhancement Program (NCC PWP/TREP) in August 2014. This PWP action for the Interstate 5 corridor in northern San Diego County serves as a master federal consistency certification to ensure the entire suite of rail, highway, transit, bicycle, pedestrian and other community and resource improvements described therein will be appropriately linked, phased, and implemented in a manner consistent with applicable Coastal Act policies. In 2019, the Commission approved Phase 1/Stage 4 as the latest installment in the comprehensive program of the NCC PWP/TREP for transportation, community, and natural resource enhancements.

Refer also to discussion under Cumulative and Secondary Impacts/Management Plans.

b) These were CZM-driven changes.

c) Outcomes: Updated land use designations, policies and ordinances in the LCPs will result in better permit decisions to protect coastal resources, especially considering projected impacts of climate change.

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

High	__X__
Medium	_____
Low	_____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

   SAMP or LCP planning is one of the primary ways that the California coastal management program is carried out. LCPs need to be kept current to new and emerging issues and reflect current conditions to best manage and protect coastal resources consistent with the Coastal Act. Stakeholder and public input obtained through the local government workshops held in 2015 and 2019 as well as the input from local governments received during the development of the Commission 2021 – 2025 Strategic Plan indicated a high interest and need for the Commission to prioritize partnership and collaboration between the Commission and local governments, Commission engagement in the local public planning process, and for the Commission to provide additional guidance and guidelines to deal with complex coastal planning issues, digital LCPs and model policy language.

Ocean and Great Lakes Resources

Section 309 Enhancement Objective: Planning for the use of ocean [and Great Lakes] resources. §309(a)(7)

PHASE I (HIGH-LEVEL) ASSESSMENT:

Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. Understanding the ocean and Great Lakes economy can help improve management of the resources it depends on. Using Economics: National Ocean Watch (ENOW),[1] indicate the status of the ocean and Great Lakes economy as of 2015 (the most recent data) in the tables below. Include graphs and figures, as appropriate, to help illustrate the information. Note ENOW data are not available for the territories. The territories can provide alternative data, if available, or a general narrative, to capture the value of their ocean economy.

Status of Ocean and Great Lakes Economy for Coastal Counties (2015)

	All Ocean Sectors	Living Resources	Marine Construction	Ship & Boat Building	Marine Transportation	Offshore Mineral Extraction	Tourism & Recreation
Employment (# of Jobs)	*557,505*	*6,421*	*6,905*	*8,846*	*101,680*	*12,064*	*421,587*
Establishments (# of Establishments)	*22,890*	*499*	*292*	*119*	*1,701*	*448*	*19,831*
Wages (Millions of Dollars)	*21,600*	*136.3*	*511*	*554.5*	*8,500*	*1,000*	*10,900*
GDP (Millions of Dollars)	*44,800*	*363.6*	*1,000*	*1,000*	*16,500*	*3,300*	*22,600*

Change in Ocean and Great Lakes Economy for Coastal Counties (2005-2015)[2]

	All Ocean Sectors	Living Resources	Marine Construction	Ship & Boat Building	Marine Transportation	Offshore Mineral Extraction	Tourism & Recreation
Employment (# of Jobs)	13%	-18%	-30%	-11%	-13%	-3%	25%
Establishments (# of Establishments)	12%	-16%	-8%	-17%	-1%	3%	15%
Wages (Millions of Dollars)	29%	-13%	-4%	29%	4%	19%	63%
GDP (Millions of Dollars)	21%	-5%	-17%	25%	11%	-41%	58%

2. Understanding existing uses within ocean and Great Lakes waters can help reduce use conflicts and minimize threats when planning for ocean and Great Lakes resources. Using Ocean Reports[3], indicate the number of uses within ocean or Great Lakes waters off your state. For energy uses (including pipelines and cables, see the "Energy and Government Facility Siting" template following). Add additional lines, as needed, to include additional uses that are important to highlight for your state.

Uses within Ocean or Great Lakes Waters

Type of Use	Number of Sites
Federal sand and gravel leases *(Completed)*	0
Federal sand and gravel leases *(Active)*	0
Federal sand and gravel leases *(Expired)*	0
Federal sand and gravel leases *(Proposed)*	0
Beach Nourishment Projects	52
Ocean Disposal Sites	51
Principle Ports *(Number and Total Tonnage)*	8 ports; 190,807,100 total tonnage
Coastal Maintained Channels	58
Designated Anchorage Areas	110
Danger Zones and Restricted Areas	8
Other (please specify)	

3. In the table below, characterize how the threats to and use conflicts over ocean and Great Lakes resources in the state's or territory's coastal zone have changed since the last assessment.

Significant Changes to Ocean and Great Lakes Resources and Uses

Resource/Use	**Change in the Threat to the Resource or Use Conflict Since Last Assessment** (↑, ↓, –, unkwn)
Benthic habitat (including coral reefs)	↑
Living marine resources (fish, shellfish, marine mammals, birds, etc.)	↑
Sand/gravel	↑
Cultural/historic	–
Other – Natural Shorelines	↑
Other – Water Quality	↑
Transportation/navigation	↑
Offshore development[4]	↑
Energy production	↓
Fishing (commercial and recreational)	↑
Recreation/tourism	–
Sand/gravel extraction	↑
Dredge disposal	↑
Aquaculture	↑
Other -Desalination	↑

4. For the ocean and Great Lakes resources and uses in the table above that had an increase in threat to the resource or increased use conflict in the state's or territory's coastal zone since the last assessment, characterize the major contributors to that increase. Place an "X" in the column if the use or phenomenon is a major contributor to the increase.

Major Contributors to an Increase in Threat or Use Conflict to Ocean and Great Lakes Resources

	Land-based development	Offshore development	Polluted runoff	Invasive species	Fishing (Comm and Rec)	Aquaculture	Recreation	Marine Transportation	Dredging	Sand/Mineral Extraction	Ocean Acidification	Energy Production	Living Resource Impacts	Shoreline Armoring
Benthic habitat (including coral reefs)		X		X	X	X			X					
Living marine resources (fish, shellfish, marine mammals, birds, etc.)	X	X	X	X	X	X	X	X	X	X	X	X		X
Sand/gravel										X				X
Other – Natural Shorelines	X		X						X	X				X
Other – Water Quality	X	X	X			X		X				X	X	
Transportation/navigation		X				X							X	
Offshore development		X			X	X		X					X	
Fishing (commercial and recreational)	X	X		X		X					X		X	
Sand/gravel extraction						X							X	X
Dredge disposal							X						X	
Aquaculture					X			X			X		X	
Desalination	X						X				X		X	

Sources: The information summarized in the table is based on the published resources and data listed in Question 4 (below), on workshops, presentations, reports and individual regulatory findings brought before the Coastal Commission since 2015, and on the expert opinion of Coastal Commission staff members.

5. If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends of ocean and Great Lakes resources or threats to those resources since the last assessment to augment the national data sets.

Living Marine Resources

Increased threats to living marine resources, including fisheries and benthic habitats:
The living marine resources of the California coast continue to be threatened by an array of factors, including point and non-point source pollution, habitat degradation and loss in coastal areas and watersheds, overfishing and by-catch, anthropogenic noise, ship strikes, invasive species, the potential for oil spills, ocean acidification and beach nourishment activities. To the extent that the impacts from these factors are cumulative or increasing, the overall threat to living marine resources is estimated to have increased since the last assessment.

A recent, overarching assessment of the status and trends of living marine resources in the California Current Large Marine Ecosystem is provided by NOAA's 2013 *California Current* Integrated Ecosystem Assessment report, Status Update for 2019:
https://www.nwfsc.noaa.gov//assets/25/9707_11192019_113138_TechMemo149.pdf

Since the last assessment there have been several positive developments in specific areas that have the potential to alleviate threats to living resources and reduce use conflicts. Several of these are summarized below:

Baseline and long-term monitoring of State Marine Protected Areas (MPAs):
Since the last assessment, a new series of regional reports summarizing the results of baseline monitoring in each region of California's coast has been issued by the California Ocean Science Trust (COST), CA Department of Fish and Wildlife (CDFW), and CA Ocean Protection Council. These reports provide data from the first five years of monitoring the state marine protected area network along the north coast, north central coast, central coast and southern coast of California. In addition to establishing a baseline against which future trends in the marine biological resources of these areas may be assessed, the report also indicates that some species are already demonstrating increased abundance in the MPA areas and that commercial and recreational fishing continues to be an integral part of the local ocean economy across the central coast at the same time a shift towards non-extractive pursuits such as whale-watching tours appears to be occurring.
MPA Baseline Monitoring Reports**:**
https://wildlife.ca.gov/Conservation/Marine/MPAs/Management/Monitoring#537132130-baseline-monitoring-reports-by-region

In 2018, COST and CDFW developed the MPA Monitoring Action Plan. The Action Plan is designed to identify key measures and metrics, habitats, species, ocean use conflicts and management questions that will drive long-term monitoring in the MPAs.
MPA Monitoring Action Plan:
https://wildlife.ca.gov/Conservation/Marine/MPAs/Management/monitoring/action-plan

Reduced threat of entrainment at coastal power plant cooling water intakes:
As discussed in more detail below, the State Water Resources Control Board has adopted a policy to phase out most once-through cooling systems at coastal power plants. As this policy is implemented, there will be reductions in the amount of seawater withdrawn from the ocean

and coastal lagoons, which is expected to reduce the entrainment of marine organisms and improve nearshore ocean productivity in the areas near existing power plants (see below).

Energy Production

Reduced Use Conflicts from Coastal Power Plants:

The state's 2010 adoption of a policy to phase out most of California's once-through cooled power plants has continued to reduce the threat to coastal marine biological resources (see below for a link to the policy and associated documents). Prior to adoption of the policy, the state's 19 coastal power plants were able to pull in up to nearly 16 billion gallons of seawater or bay water per day to cool their generating units. The combined effects of these power plant water withdrawals resulted in significant loss of marine life and biological productivity that extended along hundreds of miles of shoreline and through thousands of acres of the state's nearshore waters. Since adoption of the policy, all or some of the generating units at 14 of the 19 plants have either been retired by their owners or have modified their cooling system to no longer require seawater for cooling. The policy has so far resulted in a reduction of up to 12 billion gallons per day in allowable seawater withdrawals by these plants, which provides for a substantial improvement in nearshore ocean productivity. Several more plants are scheduled to be retired or modified in the next two years, with the remaining plants scheduled to do so during a fifteen-year compliance period.

Once-Through Cooling Policy:
http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/

Potential for increased use conflicts or threats to resources from onshore and offshore wind and wave energy: Several offshore wind or wave energy facilities have been proposed along the California shoreline, although only one has received regulatory approval. The Strauss Wind Energy Project was approved by Santa Barbara County in 2019. Although the wind turbines are located outside of the coastal zone, there is a potential for spillover effects in the coastal zone and increased use conflicts over coastal resources. Also, since the last assessment, there has been a significant increase in planning for offshore wind in California. The Coastal Commission participates on the Intergovernmental Renewable Energy Task Force, a group of state and federal agencies and tribal groups working together to examine opportunities for offshore renewable energy development in California and assess the potential for impacts to coastal resources. Planning for offshore wind is likely to continue through the next five-year assessment period with a potential for consideration of proposed offshore wind facilities.

Potential for decreased use conflicts from offshore oil and gas production:

Based on data available through 2018, offshore oil and gas production in California state waters has significantly decreased since 2014. Data available from the California Department of Conservation Division of Oil and Gas Resources (DOGGR) indicates that annual offshore oil production in state waters decreased from 14.2 million barrels in 2014 to 7.7 million barrels in 2018. This decrease is due to several factors including the Refugio Oil Spill that resulted in the closure of a critical onshore pipeline that required several offshore platforms to stop production for an indefinite period. In addition, several other platforms have stopped production and begun decommissioning activities. Oil and gas production on the federal outer

continental shelf (OCS) offshore of California has continued its long-term decline. Oil production in federal waters declined from approximately 20 million barrels in 2014 to 5 million barrels in 2018, the most recent year for which complete data are available. This decrease is due to several factors including the Refugio Oil Spill that resulted in the closure of a critical onshore pipeline and required several offshore platforms to stop production for an indefinite period. In addition, several other platforms have stopped production and begun decommissioning activities. No new platforms or leases in state or federal waters have been approved that would enable significant expansion of production in the near-term.

Oil Spills

Since 2014, a number of significant oil spills have impacted California's Coastal Zone. The most significant oil spill occurred in 2015 when a 24-inch underground pipeline (line 901) ruptured near Refugio State Beach in Santa Barbara County, causing the release of crude oil onto area beaches and into the Pacific Ocean. It is estimated that over 100,000 gallons of crude oil spilled, of which an estimated 21,000 gallons reached the ocean. In 2016, an oil spill occurred at the Port of Los Angeles when heavy fuel oil leaked from the 577-foot car carrier Istra Ace. Estimates are that some 265 barrels of oil were spilled from the vessel into San Pedro Bay, however, the quantity could be much larger. The spill covered more than 70 acres and took 23 days to clean up. In 2019, an oil spill occurred at the 421 Pier at Haskell's Beach in Goleta. The incident had occurred while crews were working to plug a historic well, releasing an estimated 80 to 125 gallons of crude oil. In addition, smaller spills in recreational harbors and marinas along the coast have also been regularly reported and cleaned up by appropriate local, state, and federal responders.

Well Stimulation & Hydraulic Fracturing

Since the last assessment, oil and gas production in California has continued to generate controversy and receive heightened scrutiny due to the public realization that the use of well stimulation techniques, in particular hydraulic fracturing ("fracking") has become increasingly common in California oil fields (including offshore), with little regulation from the state or federal government, and no clear understanding of the potential environmental effects. In response to these concerns, in 2013 California enacted new legislation (Senate Bill 4, September 20, 2013) authorizing DOGGR to develop new regulations and a permitting system for well stimulation activities and collect information on the chemicals being used in these treatments. SB 4 also mandated that the state commission an independent science study of well stimulation practices and impacts in California. The new law and regulations apply to offshore well stimulation activities within state waters, which, to date, have been limited to fracking in the Long Beach Unit. The California Council on Science and Technology published its independent science study in July 2015. Relevant to oil and gas production in the Coastal Zone, the report concluded that: (1) hydraulic fracturing was only used in a small number of offshore wells, (2) record keeping for these practices in federal waters is not consistent with state standards, (3) direct impacts from hydraulic fracturing have not been thoroughly investigated, (4) the majority of impacts associated with hydraulic fracturing are indirect impacts of oil and gas development enabled by the hydraulic fracturing, and (5) produced water from hydraulic fracturing is potentially hazardous.

Investigations conducted by the Coastal Commission staff and several non-profit and news organizations over the past two years have also revealed that well stimulation activities have occurred in wells at several offshore platforms in federal waters, though the practice is not yet widespread. In November 2019, Governor Newsom imposed a moratorium on new permits for hydraulic fracturing until further scientific review is completed. He also ordered a moratorium on steam-based oil extraction and a review of how fracking permits are issued in California.

Senate Bill 4**:** http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB4
SB 4 Interim Well Stimulation Treatment Regulations:
http://www.conservation.ca.gov/index/Documents/FInal%20Text%20of%20Readopted%20SB%204%20Interim%20WST%20Regulations%20with%20Revised%20IWSTN%20Form.pdf
SB 4 Proposed Well Stimulation Treatment Regulations, 2nd Revision:
http://www.conservation.ca.gov/index/Documents/Oct.%209,%202014%20final%202nd%20revised%20SB%204%20WST%20regulations.pdf
CCST: An Independent Assessment of Well Stimulation in California:
https://ccst.us/reports/well-stimulation-in-california/

Sand & Gravel; Natural Shorelines

Sand, gravel and sediment resources that would otherwise be added to coastal littoral cells and sustain California beaches and shorelines continue to be retained behind inland dams and debris basins in coastal watersheds, with the cumulative amount of retained sand continuing to grow. Large amounts of sand and gravel are also extracted by mining activities for use in the construction industry. California Geological Survey reports indicate that sand, gravel and crushed rock production in California has increased since 2014, and that hundreds of sand and gravel mining operations continue throughout coastal watersheds, with the largest in the San Gabriel River and Santa Ana River drainages of Southern California. Sand mining also continues at the CEMEX sand plant along southern Monterey Bay, although this sand mining operation is scheduled to end by December 2020. The estimated 200,000 cubic yards of sand that are extracted annually at this site contribute to locally high rates of beach and dune erosion. Shoreline protective devices such as breakwaters, revetments and seawalls also continue to interrupt alongshore sediment movement and retain sand that would otherwise enter the littoral cells. Data gathered by Coastal Commission staff indicate that the number of shoreline protective devices and the length of armored shoreline along the California coast have increased since the last assessment. See the Cumulative and Secondary Impacts Assessment for detail on armoring data for California.

California Geological Survey ***Reports:***
California's Non-fuel Mineral Production in 2017:
https://www.conservation.ca.gov/cgs/Documents/california-non-fuel-mineral-production-2017.pdf
Aggregate Sustainability in California 2018:
https://www.conservation.ca.gov/cgs/Documents/MS_052_California_Aggregates_Report_201807.pdf

Other -- Desalination:

Seawater desalination continues to receive significant attention in some coastal areas of California. Since 2015, the developments below have modified the threat to coastal resources or use conflicts as follows:

- **State desalination policy:** California is now implementing the Ocean Plan Amendment approved in 2014 by the State Water Resources Control Board establishes requirements for the design and siting of desalination intakes and discharges. The policy seeks to reduce adverse effects to marine life by requiring subsurface intakes where feasible, to minimize the area of ocean waters in which a high salinity discharge could adversely affect marine organisms, and to require measures to fully mitigate the adverse marine life effects that result from approved facilities. The policy also requires coordination among the various permitting agencies, including the Coastal Commission.
- **Proposed desalination facilities:** Since 2015, several water purveyors and water districts have investigated the feasibility of different desalination facility designs and locations. With the emphasis on reducing marine life mortality as expressed in both the above-referenced once-through cooling policy and the desalination policy, most of these investigations have focused on identifying ways of constructing and operating subsurface intakes, conducting studies on the effectiveness and biological results of using different screening methods, and other similar studies. There are currently two proposed new and three existing desalination facilities being reviewed for conformity to the policy, and about six possible proposals in the planning stage.

Desalination Policy:
http://www.swrcb.ca.gov/water_issues/programs/ocean/desalination/
Expert Panel on Intake Impacts and Mitigation, Final Reports:
(Oct 2013)
http://www.swrcb.ca.gov/water_issues/programs/ocean/desalination/docs/erp_final.pdf
(Mar2012)
http://www.swrcb.ca.gov/water_issues/programs/ocean/desalination/docs/erp_intake052512.pdf
Expert Panel on Impacts and Effects of Brine Discharges, Final Report:
http://www.swrcb.ca.gov/water_issues/programs/ocean/desalination/docs/dpr.pdf
Salinity Toxicity Study:
http://www.swrcb.ca.gov/water_issues/programs/ocean/desalination/docs/saltoxfr08012.pdf

Other -- Water Quality:

Inland and nearshore coastal waters are still affected by nonpoint source water pollution. Water quality, reduced flow volumes related to climate (e.g., on-going drought), water diversions and control structures (i.e., dams and reservoirs) and invasive species continue to cause declines in threatened and endangered fish species. New policies that have been adopted or proposed by the State Water Resources Control Board since 2014 may eventually improve water quality conditions in relation to specific discharge or pollutant types (e.g., bacteria, trash, etc.) (see "Single Sector Management Plans", below). Decreased federal funding for the Coastal Nonpoint Source Pollution Implementation Grants program has made it

more difficult for the Commission to address these issues and provide local assistance to minimize nonpoint source pollution through planning in Local Coastal Programs and regulatory decisions (i.e., coastal development permits).
California Ocean Plan 2019 Update:
https://www.waterboards.ca.gov/water_issues/programs/ocean/docs/oceanplan2019.pdf
State Water Board bacterial objectives:
https://www.waterboards.ca.gov/bacterialobjectives/
Statewide Water Quality Control Plans for Trash:
https://www.waterboards.ca.gov/water_issues/programs/trash_control/documentation.html

Management Characterization:

1. Indicate if the approach is employed by the state or territory and if any significant state- or territory-level changes (positive or negative) in the management of ocean and Great Lakes resources have occurred since the last assessment?

Significant Changes to Management of Ocean and Great Lakes Resources

Management Category	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Statutes, regulations, policies, or case law interpreting these	Y	Y	Y
Regional comprehensive ocean/Great Lakes management plans	Y	Y	Y
State comprehensive ocean/Great Lakes management plans	N	N	N
Single-sector management plans	Y	Y	Y

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
   a. Describe the significance of the changes;
   b. Specify if they were 309 or other CZM-driven changes; and
   c. Characterize the outcomes or likely future outcomes of the changes.

Statutes, Regulations, Policies, Case Law

Marine Life Protection Act Implementation; Marine Protected Areas

Initiated in 2007 and completed in December of 2012, California's state marine protected areas planning process (carried out under the 1999 Marine Life Protection Act) has resulted in enhanced protection for approximately 16% of coastal state waters (roughly 852 square miles) as Marine Protected Areas (MPAs). The Commission's Coastal Management Program does not directly implement these programs but participates through intergovernmental coordination.

a) Significant changes since last assessment: Since the last assessment, the California Fish and Game Commission adopted the Master Plan for MPAs in August 2016, a document designed to guide the implementation of the Marine Life Protection Act. Also, in 2018, the California Department of Fish and Wildlife adopted the MPA Monitoring Action Plan. This Plan prioritizes key measures and metrics, habitats, sites, species, human uses, and management questions to target for long-term monitoring and aid in the evaluation of the Network in meeting the goals of the MLPA
b) 309 or other CZM-driven changes: These changes were not driven by Section 309 or other CZMA provisions.
c) Outcomes & Effectiveness: The designation of state MPAs establishes a higher level of protection for the marine species and habitats contained in these areas and the establishment of the MPA network is expected to help ensure that this protection extends to the settlement and recruitment of future generations of these species. Early monitoring data from the Central Coast suggests that populations of marine species are increasing within the MPAs relative to outside areas and this trend is expected to continue.

California Ocean Protection Act Implementation

The California Ocean Protection Act of 2004 created the Ocean Protection Council (OPC), and charged it with broad duties related to the protection of ocean and coastal resources, including: (a) the coordination of state ocean resource agency activities; (b) the facilitation of scientific data collection and sharing of pertinent results; (c) the identification of changes in state and federal law and policy that would improve ocean/coastal resource protection; and (d) recommendations to the Legislature on ocean/coastal resource policy. As a partner agency of the OPC, the Commission participates in new OPC programs through interagency coordination.

a) Significant changes since last assessment:
March 2018, OPC approved an update to State's *Sea-Level Rise Guidance Policy*. This update incorporated advances in ice loss science and projections of sea-level rise and included guidance to address the needs of both state agencies and local governments.
In 2018, OPC adopted the *State of California Ocean Acidification Action Plan* that articulates a 10-year vision for addressing ocean acidification and includes a series of pragmatic actions to work towards that vision. The Commission provided input and comments on this plan during its development. In 2018, the California Natural Resources Agency updated the state's Climate Change Adaptation Strategy called the Safeguarding California Plan. This Plan serves as the State's roadmap for everything state agencies are doing and will do to protect communities, infrastructure, services, and the natural environment from climate change impacts. One of the principal components of the Plan is focused on California's coastal and ocean resources.

b) 309 or other CZM-driven changes? These changes were not driven by Section 309 or other CZMA provisions.
c) Outcomes & Effectiveness: Unknown.

Regional Comprehensive Ocean Management Plans

West Coast Ocean Alliance (WCOA), (formerly West Coast Governors Alliance on Ocean Health and West Coast Governors Alliance

In September 2006, the Governors of California, Oregon, and Washington announced the West Coast Governors Agreement on Ocean Health.[54] The agreement launched an updated regional collaboration to protect and manage the ocean and coastal resources along the entire West Coast, as called for in the recommendations of the U.S. Commission on Ocean Policy and the Pew Oceans Commission.

a) Significant changes since last assessment:
In early 2015, the WCGA supported the convening of the first West Coast Ocean Summit, held in Portland, Oregon wherein state, federal, and tribal representatives from all three West Coast states attended to discuss marine planning priorities and organization. Several key items came out of the summit that set priorities for future efforts including:
- Continuing coordination between the state, federal, and tribal marine planning entities;
- Establishing a West Coast Regional Planning Body (RPB) per Executive Order 13547, which created a National Ocean Policy. This group was to focus on coordination amongst marine planning entities and continue to support the West Coast Ocean Data Portal (WCODP), an entity previously funded by the WCGA.
- Establishing a West Coast Ocean Partnership (WCOP) to focus on ocean health, reinforcing previous WCGA efforts, and work in concert with the newly established RPB. The primary goals within the WCOP Strategic Framework included coastal resiliency, changing ocean conditions, and data coordination.

However, due to limited funding and shifting national policies, both the WCOP and RBP reorganized. As of 2020, the WCOP is inactive, and the RPB is known as the West Coast Ocean Alliance (WCOA), though its primary members and goals have not changed.

WCOA members consist of 11 federally recognized Tribes, 6 state agencies, 8 federal agencies, and the Pacific Fisheries Management Council. The goals of the WCOA include the following: 1. compatible and sustainable ocean uses, 2. effective and transparent decision-making, 3. comprehensive ocean and coastal data, and 4. increased understanding of and respect for tribal rights, resources, and knowledge. A primary focus of the WCOA continues in 2018 – 2020 is to work in concert with the WCODP, gathering coastal and ocean data to support regional management efforts and decision-making. This effort has been supported by federal appropriations provide in FY 2019 and FY 2020 through the IOOS Network to support regional data management efforts. In addition, the WCOA recently

[54] http://www.cmsp.noaa.gov/activities/wcga.html

developed a Tribal Engagement Guidance document. Future deliverables and work plans that support the WCOA's vision statement are still being developed.

b) 309 or other CZM-driven changes: These changes were not CZM. The Commission does not directly implement this program but participates through intergovernmental coordination and relevant topic area working groups as staff capacity allows.
c) Outcomes & Effectiveness: Unknown.

San Diego Marine Spatial Planning

In 2016 the California State Lands Commission partnered with the Port of San Diego to embark on a regional ocean planning effort. This effort began with the development of a preliminary assessment report (https://www.sdoceanplanning.org/preliminary-assessment-report) based on the results of engagement and discussions with stakeholders about how they use the ocean space, their challenges with those uses, their previous experiences and concerns with ocean planning and similar planning processes, and suggestions on how to best manage this type of process. Following the release of the assessment report in December 2018, the planning partnership also completed and released an interactive web mapping application: https://www.sdoceanplanning.org/web-mapping-application

a) Significant changes since last assessment: This is a new effort since the last assessment.
b) 309 or other CZM-driven changes? These changes were not driven by Section 309 or other CZMA provisions.
c) Outcomes & Effectiveness: Unknown.

Single-Sector Management Plans

California State-wide Sediment Management Plan

Though not part of the Commission's Coastal Management Program, Commission staff has served as part of the Coastal Sediment Management Working Group (CSMW) since its inception and has participated in and overseen the development of several reports and tools related to the California Coastal Sediment Management Master Plan. This Sediment Master Plan is currently being implemented through a series of regional sediment management plans (see below).

a) Significant changes since last assessment: CSMW is developing a coastal Sediment Master Plan (SMP) to help guide sediment management efforts anticipated when implementing regional sediment management. The focus is to identify and prioritize sediment management needs and opportunities along the California coast, provide this information to resource managers and the general public, and develop strategies to facilitate sediment management activities. The SMP includes three types of Support Tools developed by CSMW: Informational reports, digital tools, and Coastal RSM Plans (CRSMPs). Public and agency outreach provide the fourth and overarching SMP focus. CSMW hosted several SMP Implementation Workshops in regions with a completed CRSMP to gain insight from stakeholders on implementation strategies across coastal California. These insights are being incorporated into the SMP

Implementation Report, currently under development. As of June 2019, several activities are ongoing or reaching conclusion, including:

- The state-wide final Sediment Master Plan Implementation Report
- An offshore sand prospect study
- A pilot beach nourishment study in San Mateo county
- A Programmatic Environmental Report in Humboldt County
- A Strategic Planning effort is envisioned to help CSMW identify the Workgroup's future focus.

b) 309 or other CZM-driven changes? These changes were not driven by Section 309 or the CZM program. Funding for the California Coastal Sediment Management program was originally initiated with funding from NOAA and has received subsequent funding the Bureau of Ocean and Energy Management (BOEM). During the assessment period, funding was provided by the U.S. Army Corps of Engineers and the California Natural Resources Agency. Commission staff participation in the CSMW is s mostly supported with state funding.

c) Outcomes & Effectiveness: The statewide effects of these sediment management activities will likely take several years to decades to become apparent, but the primary goal of sediment management activities is to reduce shoreline erosion and coastal storm damages and to protect beaches and coastal habitats through regional approaches to addressing/managing sediment imbalances.

Regional Sediment Management Plans

The Commission's Coastal Management Program does not directly implement Coastal Regional Sediment Management Plans (CRSMP) but participates through the Coastal Sediment Management Workgroup (CSMW) as described above. The CSMW is spearheading and coordinating the development and implementation of these plans, and through other intergovernmental coordination (See also Coastal Hazards Section).

a) Significant changes since last assessment: Since the last assessment, several CRSMPs have been completed, while others have initiated or continued the planning and development process (e.g., data collection, stakeholder input, governance policy development, preparation of environmental documents and draft CRSMP, public review):

- Santa Cruz Littoral Cell - The US Army Corps of Engineers (USACE) completed a Coastal RSM Plan for the stretch of coast from Half Moon Bay to Moss Landing in 2015. Monterey Bay National Marine Sanctuary partnered in preparing the Plan and hosts a descriptive webpage with access to the Santa Cruz Littoral Cell CRSMP
- San Francisco Open Coast Littoral Cell – A Coordination Network of jurisdictions was formed to address implementation for this cell, which extends from the Golden Gate Bridge to Pacifica. The report was finalized in 2016; CSMW is working to incorporate public comments on this Plan.
- San Luis Obispo County – The San Luis Obispo Council of Governments (SLOCOG) completed their Coastal RSM Plan for San Luis Obispo County in 2016.

- Los Angeles County - CSMW worked with a consultant to develop the report and to attempt to assemble an effective governance structure for the coastal area within LA County. A draft Coastal RSM Plan, completed in 2012, was considered as final in 2017.
- Eureka Littoral Cell - The Humboldt Bay Harbor Recreation and Conservation District completed their Plan in 2017. The Plan covered the area from Trinidad Head south to False Cape, including the interior of Humboldt Bay.
- San Francisco Central Bay - The Bay Conservation and Development Commission (BCDC) developed a Coastal RSM Plan for the central SF Bay to the Golden Gate. The Report was completed by 2017.
- Marin and Sonoma County - The Greater Farallones National Marine Sanctuary completed CSMWs last Coastal RSM Plan in 2018. The report covered the outer coasts of Marin and Sonoma counties, from Bolinas Bay to Jenner.

b) 309 or other CZM-driven changes: Commission staff participation is mostly supported by state funding; overall funding for these programs comes from other non-CZM funding sources.

c) Outcomes & Effectiveness: Similar to the state-level efforts, the regional plans are meant to support evaluation and development of regional sediment management plans at the local level to prepare the coast for the next 50 years to reduce shoreline erosion and coastal storm damages and to protect beaches and coastal habitats through regional approaches to addressing/managing sediment imbalances. Coastal Commission staff are not directly involved in monitoring the effectiveness of the plans, but longer-term effectiveness will be evaluated by the degree to which Commission receives permit applications or land use plan amendments to address shoreline change.

California Ocean Plan Amendments (Water Quality)

The State Water Quality Control Board (SWRCB) has developed and periodically updates the California Ocean Plan ("Water Quality Control Plan for California Ocean Waters") and California Inland Waters, Enclosed Bays and Estuaries Plan, which contain policies designed to control waste discharges and protect water quality along the California coast for the benefit of marine and estuarine species and public health. Authority for Ocean Plan policies comes from both the California Water Code and federal Clean Water Act. The Commission's Coastal Management Program is not directly responsible for implementing the Ocean Plan, but Commission staff have been integrally involved in the development of several of recent or proposed plan amendments, in particular the Once-Through Cooling Policy and Desalination Policy (see below).

a) Significant changes since last assessment: Since the last assessment, the SWQCB has adopted a revised Ocean Plan containing several important amendments, and is currently in the process of developing several new policies for inclusion in future revisions:
   - Amendment of Ocean Plan addressing new bacteria water quality objectives and implementation provisions to protect recreational users from the effects of pathogens in ocean waters of California, adopted August 2019.

- Amendment of Ocean Plan and Enclosed Bays and Estuaries Plan that includes new policies governing desalination facilities and brine discharge ("Desalination Policy"), adopted April 2016. Development of this policy included significant input from Commission staff and other state agencies.

b) 309 or other CZM-driven changes? Commission staff participation was funded in part with 306 grant monies, but funding for these programs comes from other non-CZM funding.

c) Outcomes & Effectiveness: The newly adopted and proposed policies are expected to reduce pollutant discharges to and improve water quality in the coastal ocean, and in the case of the Desalination Policy, greatly reduce existing and potential impacts to living marine resources associated with entrainment in desalination plant intake systems.

Oil Spill Prevention and Response

The Coastal Commission is one of several state agencies charged with developing programs to prevent and respond to oil spills in the marine environment. The Commission also reviews federal actions related to oil spills through its federal consistency authority under the CZMA. Significant activities and policy changes related to oil spills since the last assessment are summarized below:

a) Significant changes since last assessment:
   - The Region IX Regional Contingency Plan was updated to include the Dispersant Use Plan for California (2018). The Coastal Commission agreed that the proposed updates would improve oil spill response procedures and capabilities and would not adversely affect coastal resources, and therefore concurred with the Coast Guard's Negative Determination (ND 0047-18).
   - The Commission's Oil Spill Program continues to review Oil Spill Response Plan (OSRP) updates for consistency with the Commission's prior federal consistency actions over the installation and operation of some OCS platforms.
   - The Commission's Oil Spill Program has been coordinating permits with NOAA's Office of Response and Restoration to carry-out scientific research on the use of Unmanned Aircraft Systems (UAS) for detecting oil spills, including a concurrence on a Negative Determination for a demonstration project in the Santa Barbara Channel (ND-0026-17). The Commission will continue to facilitate use of UAS's for oil spill detection and response planning in California.
   - The Commission's Oil Spill Program staff continues to participate in regional Area Committees with local, state, and federal partners and has been involved in updates to regional oil spill response plans, including formulation of new/alternative sensitive site response strategies.
   - The Commission's Oil Spill Program continues to fulfill its legislative mandate as a member of four Harbor Safety Committees (HSC's) and aids in the development of BMP's for improving navigation and safety along California's coastline.
   - The Commission's Oil Spill Program staff, along with local, state, and federal partners, was selected by the OSPR Technical Advisory Committee (TAC) as the State Agency Representative to the Vessel of Opportunity (VOO)Task Force. The VOO Task

Force was established by SB 414 and is required to evaluate and make recommendations to the TAC regarding the feasibility of using VOO's for oil spill response in marine waters.

- AB 2864 (Limon) Natural Resource Damage Assessment (NRDA) Participation – This bill was recently passed and requires the OSPR Administrator to invite the CCC and BCDC to participate in the NRDA process for coastal and Bay oil spills. The Commission staff is currently working with other trustee agencies on the review of the Refugio Beach Oil Spill Draft Damage Assessment and Restoration Plan/Environmental Assessment.
- The Commission's Oil Spill Program has begun working with the USCG, OSPR, and the Governor's Office of Emergency Services to conduct communication and other related oil spill prevention and response workshops (e.g., First Responder Awareness Training, Response Communication Workshop) with the boating industry and other stakeholders.

b) 309 or other CZM-driven changes? The activities of the Coastal Commission Oil Spill Program are not funded under Section 309, but CZM-driven.

c) Outcomes & Effectiveness: The risk of spills along the California coastal remains, and on-going coordination with industry and other responsible agencies is necessary to prevent future oil spills and effectively respond to them if they occur.

3. Indicate if your state or territory has a comprehensive ocean or Great Lakes management plan.

Comprehensive Ocean/Great Lakes Management Plan	**State Plan**	**Regional Plan**
Completed plan (Y/N) (If yes, specify year completed)	N	y
Under development (Y/N)	N	Y
Web address (if available)	N/A	http://www.westcoastoceans.org/media/wcop-strategic-framework_final.pdf https://www.sdoceanplanning.org/web-mapping-application
Area covered by plan	N/A	West Coast Oceans: CA, OR, WA SD Planning: Southern California, including San Diego Bay

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

High _____
Medium __X___
Low _____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

The Coastal Commission plays a critical role in the management of the state's ocean resources through implementation of the Coastal Act and its coastal management program. The Commission is engaged in many statewide policy issues like Marine Protected Areas, marine planning, desalination, aquaculture, beach nourishment and renewable energy. Many of the early public comments on the Commission's new Strategic Plan noted opposition to offshore drilling and a preference for looking at alternative energy such as offshore wind. While this work is a high priority for the agency overall, there are other funding sources that can be used to support Commission efforts in this area; as such, it is a medium priority for 309 work. Currently, Commission does not see a need to pursue any program change in the Ocean Resources enhancement. However, efforts on other higher priority enhancement areas, like marine debris and addressing coastal hazards will benefit ocean resources and the implementation of Coastal Act marine resources policies.

Energy and Government Facility Siting

Section 309 Enhancement Objective: Adoption of procedures and enforceable policies to help facilitate the siting of energy facilities and Government facilities and energy-related activities and Government activities which may be of greater than local significance. §309(a)(8)5

PHASE I (HIGH-LEVEL) ASSESSMENT:

Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. In the table below, characterize the status and trends of different types of energy facilities and activities in the state's or territory's coastal zone based on best-available data. If available, identify the approximate number of facilities by type. For ocean-facing states and territories (not Great Lakes states), Ocean Reports[6] includes existing data for many of these energy facilities and activities.

Status and Trends in Energy Facilities and Activities in the Coastal Zone

Type of Energy Facility/ Activity	Exists in Coastal Zone (# or Y/N)	Change in Existing Facilities/Activities Since Last Assessment (-,¯,-,unkwn)	Proposed in Coastal Zone (# or Y/N)	Change in Proposed Facilities/Activities Since Last Assessment (-,¯,-,unkwn)
Pipelines	Y	¯Line 901 in Santa Barbara County out of service due to Refugio Oil Spill	Y	-Pipeline 901/903 replacement project proposed in Santa Barbara County
Electrical grid (transmission cables)	Y	No change	Y	-New transmission associated with future offshore wind or wave energy projects
Ports	Y	unknown	N	-No new ports proposed or increases in tanker/barge traffic expected
Liquid natural gas (LNG)	N	- No LNG facilities in CA	N	- No new LNG facilities proposed
Other: Thermal (Natural Gas) Power Plants	19	¯Generating units at 16 of 19 plants have retired or switched away from using seawater for once-through	Y	¯Several more plants are scheduled to retire in the next five years.

Type of Energy Facility/ Activity	Exists in Coastal Zone (# or Y/N)	Change in Existing Facilities/Activities Since Last Assessment (-,¯,-,unkwn)	Proposed in Coastal Zone (# or Y/N)	Change in Proposed Facilities/Activities Since Last Assessment (-,¯,-,unkwn)
		cooling. Some sites will likely be available soon for other purposes.		
Oil and gas	Y	¯Several offshore platforms have commenced decommissioning activities	Y	-Proposed new production at new facility in Los Angeles County
Coal	N	-No change	N	-No change
Nuclear	Y	¯In 2013, one of CA's 2 remaining nuclear plants shut down	N	-No new nuclear facilities proposed, and the last remaining nuclear units (at Diablo Canyon) are scheduled to shut down in 2023 and 2025.
Wind	Y	-Only small-scale wind projects have been built	Y	-One onshore wind facility is proposed in Santa Barbara County. - Offshore wind is in the planning stages but specific facilities are not likely to be proposed within the next 5 years.
Wave	N	-No change	Y	-Two preliminary permits pending with FERC
Tidal	N	-No change	N	-None proposed
Current (ocean, lake, river)	N	-No change	Y	-One permit pending with FERC
Hydropower	N	-No change	N	- FERC issued two preliminary permits for pumped storage/hydropower projects at Vandenberg AFB and Marine Corps Base Camp Pendleton.
Ocean thermal energy conversion	N	-No change	N	-None proposed
Solar	Y	-No change	Y	-Continuing interest in residential, small-scale projects
Biomass	N	-No change	N	-No change

2. If available, briefly list and summarize the results of any additional state- or territory-specific information, data, or reports on the status and trends for energy facilities and activities of greater than local significance in the coastal zone since the last assessment.

Oil & Gas Facilities

As reported for the last assessment, in 2014, the U.S. Department of the Interior (DOI) issued a Request for Information on the 2017-2022 OCS Oil and Gas Leasing Program requesting that interested parties submit comments about the potential for new leases and to identify environmental concerns and issues related to offshore leasing. In July 2014, the Coastal Commission and the Governor of California sent letters urging the DOI to not include any new oil and gas OCS lease sales in California in the new proposed 2017-2022 OCS Oil and Gas Leasing Program. The final 2017-2022 OCS Oil and Gas Leasing Program, issued in November 2016, did not schedule any new leases in the Pacific Region.

On January 4, 2018, DOI issued the Draft Oil and Gas Leasing Program for 2019-2024, proposing new leases in federal waters offshore of Northern, Central and Southern California. The Coastal Commission, the Governor of California and several other state government agencies sent letters again urging DOI not to include new leases in California. We are awaiting DOI's final 2019-2024 Oil and Gas Leasing Program, due out in 2020.

In general, there has been a decline in oil and gas production in the Coastal Zone over the last five years. Veneco, Inc. filed for bankruptcy in 2017, quitclaiming its interests in the South Ellwood Field leases, including Platform Holly and the Ellwood Beach pier leases in Santa Barbara County. The State Lands Commission is in the process of completing decommissioning activities on both leases. There has also been increased interest in decommissioning offshore platforms in federal waters. Several informational reports have been generated by the Interagency Decommissioning Working Group and its partner agencies regarding the ongoing process of decommissioning oil and gas platforms in the coastal zone and California's OCS. In addition to the Veneco platform, seven others on the OCS are currently undergoing decommissioning.

Although there has been a general decreasing trend for oil and gas production in California's coastal zone and OCS over the past five-year period, there is the potential for new oil and gas production over the next five-year period. In 2018, the Coastal Commission approved an expanded onshore oil and gas facility in Long Beach in Los Angeles County. The new facility will expand production and consolidate the surface area of an existing operation. It is also possible that oil and gas operators could seek to increase the production of oil and gas both onshore and offshore California using well stimulation treatments including hydraulic fracturing and acid well stimulation. As documented in other regions of the country, new well stimulation treatments have significantly increased production of oil and gas from existing and new wells, leading to construction of additional production and processing facilities and new transportation pathways. At this time, it is uncertain whether these new techniques could

result in an expansion of oil and gas production within the coastal zone or federal waters in California, although there is some evidence to suggest that the fractured formations in California are not conducive to the type of extensive and highly productive hydraulic fracturing practiced in the Midwest. As required by Senate Bill 4, discussed in more detail below, the State of California conducted a scientific study on well stimulation treatments to understand the advantages and disadvantages of employing these treatments in California and to inform the development of new rules and regulations governing these practices. The study found that hydraulic fracturing was not widely used in California, but the impacts are still largely unknown. Until additional research is conducted and new regulations adopted, the potential impact of increased well stimulation treatments on oil and gas production in California is unknown.

It is also likely that the next five years will see additional oil and gas pipelines in California's coastal zone. In May of 2015 oil transport pipeline Line 901 ruptured near Refugio State Beach and spilled roughly 3,000 barrels of heavy crude into the Pacific Ocean. Preliminary planning and environmental review are currently underway In Santa Barbara County to replace Line 901 with a new pipeline and to authorize oil transport by truck in the interim. A Draft Supplemental Environmental Impact Report has been prepared for the interim trucking project that includes a variety of information regarding the status and trends of energy facilities in central California's coastal zone.

Coastal Power Plants

In 2010, the state of California adopted a policy to phase out most of California's once-through cooled power plants. Prior to adoption of the policy, the state's 19 coastal power plants were able to pull in up to nearly 16 billion gallons of seawater or bay water per day to cool their generating units. The combined effects of these power plant water withdrawals resulted in significant loss of marine life and biological productivity that extended along hundreds of miles of shoreline and through thousands of acres of the state's nearshore waters. Since adoption of the policy, generating units at 14 of the 19 plants have either been retired by their owners or have modified their cooling system to no longer require seawater for cooling. The policy has so far resulted in about a 12 billion gallon per day reduction in allowable seawater withdrawals, which provides for a substantial improvement in nearshore ocean productivity. Several more plants are scheduled to be retired or modified in the next five years, with the remaining plants scheduled to do so during a fifteen-year compliance period. Some of the sites where plants have retired may soon be available for other coastal uses.

Nuclear Power Plants

As of the last assessment, California's coastal zone contained two nuclear power plants – Southern California Edison's San Onofre Nuclear Generating Station (SONGS) and Pacific Gas & Electric Company's Diablo Canyon Power Plant. In July 2013, after struggling to repair leaks from both reactors at the facility, Southern California Edison announced that SONGS would be permanently shut down and decommissioned. Both reactors ceased to generate power as of

October 2013, although the plant still takes in about 50 million gallons per day of ocean water to cool the spent fuel pools. The owner of the Diablo Canyon facility, Pacific Gas & Electric Company, recently announced that they would not seek to operate the facility after its current licenses expire in 2023 and 2025. Elimination of the SONGS and Diablo Canyon discharges and significant decrease in the volume and eventual elimination of the plant's intakes are expected to result in improvements to the quality and productivity of offshore marine resources. To replace the power produced by SONGS in both the short and long term, the California Independent Service Operator, California Energy Commission, and California Public Utilities Commission are conducting ongoing integrated resource planning, developing grid support and electrical transmission scenarios, and identifying where and how much new power generation will be needed, some of which may be proposed in the coastal zone.

During its review of the proposed decommissioning of the San Onofre Nuclear Generating Station in 2019, the Commission continued to identify the need for a national solution for storage of spent nuclear fuel from nuclear power plants. The three coastal nuclear power plants in California—Humboldt Bay Nuclear Power Plant, Diablo Canyon Nuclear Power Plant in San Luis Obispo County, and San Onofre—all have temporary, on-site storage facilities, as there are no off-site sites available. All three of these nuclear facilities are located directly on the ocean, and their on-site storage of spent nuclear fuel is a public safety and coastal resource concern because of long-term implications of sea level rise and other coastal hazards. The continued presence of spent nuclear fuel is presently highly controversial particularly at San Onofre, but the need for a national, long-term solution for safely storing spent nuclear fuel is common to all three facilities.

Offshore Wind

Since the last assessment, there has been new interest in developing offshore wind resources in California. In May 2016, Governor Jerry Brown sent a letter to DOI Secretary Sally Jewell requesting formation of an Intergovernmental Renewable Energy Task Force to examine opportunities for offshore renewable energy development in California. The Coastal Commission is an active participant on the Taskforce, in addition to several other state and federal agencies and tribal groups. In October 2018, in response to interest from developers, BOEM issued a Call for Information and Nominations requesting information and expressions of interest for three offshore Call Areas located off of California's north and central coast. Since the Call closed at the end of January 2019, BOEM has been preparing a NEPA document in preparation for a lease sale. Prior to the lease sale and possibly as early as summer of 2020, BOEM will submit a federal consistency determination to the Coastal Commission on potential lease areas. Although it is early in the planning process for offshore wind, the Coastal Commission is working with our state and federal agency partners to ensure that offshore wind facilities are sited, designed, constructed and operated in a manner that avoids and minimizes impacts to coastal resources.

3. Briefly characterize the existing status and trends for federal government facilities and activities of greater than local significance[7] in the state's coastal zone since the last assessment.

Since the last assessment, the state has continued to see increases in the extent and pace of Department of Defense military activities, in the form of physical development and training and testing activities, both onshore and offshore, in San Diego County (onshore) and Southern California Training Offshore waters. Several factors have converged to create these intensifications: increased military focus on littoral warfare, joint international training with ally nations, a desire to reduce travel time by military personnel (and allow them more "family time"), increasing efficiencies gained through combining the resources multitude of military bases in proximity to San Diego, an overall shift from Atlantic-focused training to Pacific-focused training, and, given the realities and perceptions of increased threats worldwide to the nation's security, an overall increase in Navy and Marine Corps personnel and tempo of their training. These increases could, if not carefully planned and implemented, pose pressures on scarce and sensitive coastal zone resources.

Management Characterization:

1. Indicate if the approach is employed by the state or territory and if significant state- or territory-level changes (positive or negative) that could facilitate or impede energy and government facility siting and activities have occurred since the last assessment.

Significant Changes in Energy and Government Facility Management

Management Category	**Employed by State or Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
Statutes, regulations, policies, or case law interpreting these	Y	Y	Y
State comprehensive siting plans or procedures	Y	Y	N

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
   a. Describe the significance of the changes;
   b. Specify if they were 309 or other CZM-driven changes; and
   c. Characterize the outcomes or likely future outcomes of the changes.

Statutes, regulations, policies and case law:

Assembly Bill 1775 and Assembly Bill 342

a) Since the last assessment, the State of California adopted new laws prohibiting oil development and pipelines on state lands. These laws, AB 1775 and AB342 would also indirectly restrict oil development on adjacent federal lands, including the outer continental shelf.
b) This change was not 309 or CZM-driven.
c) The likely future outcomes of these changes would be to prohibit new oil and gas development on state lands and in the OCS.

Senate Bill 350 and Executive Order (B-30-15)

a) In 2015, the Clean Energy and Pollution Reduction Act (Senate Bill 350) established clean energy, clean air, and greenhouse gas (GHG) reduction goals, including reducing GHG to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. The Governor also issued an executive order to this effect, which also set interim targets on reducing GHG emissions by 40% below 1990 levels. California Energy Commission is working with other state agencies on implementation.
b) This change was not 309 or CZM-driven.
c) Expected outcomes of the bill are increased use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, geothermal and others.

Senate Bill 32

a) In 2018, updated the state clean energy and GHG reduction goals and target dates. The legislation mandates increases to renewable energy use, putting more electric cars and the road and improving energy efficiency and curbing emissions from key industries.
b) This change was not 309 or CZM-driven.
c) Expected outcomes of the bill are increased use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, geothermal and others.

State Policy: Executive Order B-55-18 Commitment to Carbon Neutrality

a) In 2018, Governor Brown issued Executive order calling for statewide carbon neutrality by 2045.
b) This change was not 309 or CZM-driven.
c) Expected outcomes are to continue to push the state to achieve GHG reductions.

State Policy: Ocean Protection Council Strategic Plan

a) The California Ocean Protection Council Strategic Plan sets a target of development of a commercial scale offshore wind project in California that minimizes impacts on marine biodiversity or habitat, currents and upwelling, fishing, cultural resources, navigation, aesthetic/visual, and military operations by 2026.
b) This is not a 309 of CZM-driven change

c) Encourages state agency coordination and supports state efforts on research, data and analysis to identify viable options for commercial scale offshore energy by 2026.

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

   High _____
   Medium __X___
   Low _____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

Energy and Government Facility Siting enhancement are is a medium priority for the Coastal Commission, similar to the reason describe for Ocean Resources. Public comments on the Commission's 2021 - 2025 Strategic Plan support a moratorium on any new oil and gas drilling and specifically addressed issues like the decommissioning of Diablo Canyon Nuclear Plant and permitting desalination plants. Overall, many commenters suggest Commission's work in the area of energy and government facility siting should reflect the state's high priority on reducing energy use and transitioning to renewable energy. For any newly proposed or existing energy facilities that are at risk to flooding or erosion, now or with future sea level rise, this will be addressed through the efforts under the Coastal Hazards and Special Area Management Plan enhancement areas.

Aquaculture

Section 309 Enhancement Objective: Adoption of procedures and policies to evaluate and facilitate the siting of public and private aquaculture facilities in the coastal zone, which will enable states to formulate, administer, and implement strategic plans for marine aquaculture. §309(a)(9)

PHASE I (HIGH-LEVEL) ASSESSMENT: *(Must be completed by all states and territories.)*
Purpose: To quickly determine whether the enhancement area is a high-priority enhancement objective for the CMP that warrants a more in-depth assessment. The more in-depth assessments of Phase II will help the CMP understand key problems and opportunities that exist for program enhancement and determine the effectiveness of existing management efforts to address those problems.

Resource Characterization:

1. In the table below, characterize the existing status and trends of aquaculture facilities in the state's coastal zone based on the best-available data. Your state Sea Grant Program may have information to help with this assessment.[55]

Status and Trends of Aquaculture Facilities and Activities[56]

Type of Facility/Activity	Number of Facilities[57] in 2018	Approximate Economic Value (2018)	Change Since Last Assessment (2013) (↑, ↓, –, unkwn)
All Shellfish[58]	21	More than $33.7 M	↑
Total Mollusk	20	$33.7 M	↑
Abalone	3	(not disclosed)	unkwn
Clams	3	$14,000	unkwn
Mussels	7	(not disclosed)	unkwn
Oyster[59]	17	$28.7 M	↑
Kelp/Marine Algae[60]	3	(not disclosed)	↑

[55] While focused on statewide aquaculture data rather than just within the coastal zone, the *Census of Aquaculture* (*www.agcensus.usda.gov/Publications/Census_of_Aquaculture/*) may help in developing your aquaculture assessment. The census is conducted every 10 years and the last report was released in 2013. The report provides a variety of state-specific aquaculture data to understand current status and recent trends.
[56] Based on 2018 Census of Aquaculture, https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/Aquaculture/index.php
[57] Be as specific as possible. For example, if you have specific information of the number of each type of facility or activity, note that. If you only have approximate figures, note "more than" or "approximately" before the number. If information is unknown, note that and use the narrative section below to provide a brief qualitative description based on the best information available.
[58] Includes crustaceans and mollusks. Only mollusk sales reported for California
[59] Includes commercial nursery/seed production facilities and grow-out farms.
[60] Includes research and experimental facilities. Only 1 algae and 1 microalgae facility reported for California in 2018 Census of Aquaculture.

2. If available, briefly list and summarize the results of any additional state- or territory-specific data or reports on the status and trends or potential impacts from aquaculture activities in the coastal zone since the last assessment.

   The Coastal Commission is nearing the completion of the permit compliance effort initiated during the last 309 assessment. This effort involved review of existing coastal development permits for aquaculture operations and a collaborative, multi-agency to ensure all state permitting requirements were being met. The effort resulted in the issuance of new or amended permits for the majority of shellfish aquaculture operations within California's coastal zone to resolve permit non-compliance issues and bring unpermitted aquaculture activities into compliance with the Coastal Act. Additionally, many of the new authorizations allow for the expansion of existing shellfish aquaculture facilities by adding acreage and/or cultivation methods that are expected to yield higher production volumes and economic value in coming years.

   In addition, Commission staff are currently involved in early consultation, agency coordination, and preliminary environmental review activities with five pending shellfish aquaculture projects. Four of these projects are proposed to be located in the open coastal waters offshore of California rather than protected estuaries and embayments.

   Commission staff have also seen a growing interest in aquaculture focused on marine algae species. Three research- or pilot-scale facilities have been approved and installed within California's coastal zone since the last assessment and there are currently two proposals for commercial scale kelp cultivation operations in the initial stages of project development.

   The primary potential impacts from aquaculture activities in the coastal zone that have arisen since the last assessment concern marine debris and naturalization of non-native species. Shellfish aquaculture relies heavily on the use of plastic cultivation structures and materials that can become dislodged and lost into the marine environment. Due to the volume and quantity of this material, even the loss of a low percentage of total gear can result in the annual loss of many tons of plastic into the ocean. As aquaculture operations expand in California's coastal zone and the use of new gear types increases, the Commission, through the imposition of special conditions (i.e., mitigation measures), is focused on the prevention of gear loss and promotion of gear recovery and clean-up efforts.

   The Commission is similarly concerned with preventing and responding to the naturalization of non-native aquaculture species. Although not native to California, one of the most commercially valued species, the Pacific oyster, is now understood to have escaped from cultivation and is establishing self-sustaining wild populations throughout southern California. As climate change related shifts in oceanic conditions occur, this naturalization trend has the potential to increase and expand into other parts of the state. In response, the Commission is actively tracking the presence of wild Pacific oysters and is requiring the use of sterile triploid oyster varieties in cultivation.

Management Characterization:

1. Indicate if the approach is employed by the state or territory and if there have been any state- or territory-level changes (positive or negative) that could facilitate or impede the siting of public or private aquaculture facilities in the coastal zone.

Significant Changes in Aquaculture Management

Management Category	**Employed by State or Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Changes Since Last Assessment** (Y or N)
Aquaculture comprehensive siting plans or procedures	Y	N	N
Other aquaculture statutes, regulations, policies, or case law interpreting these	Y	N	Y

2. For any management categories with significant changes, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information:
    a. Describe the significance of the changes;
    b. Specify if they were 309 or other CZM-driven changes; and
    c. Characterize the outcomes or likely future outcomes of the changes.

<u>Statutes, regulations, policies or case law</u>

Senate Bill 262

a) On October 2, 2019, California's governor signed Senate Bill No. 262. This legislation requires the Coastal Commission to develop guidance, in consultation with the California Department of Fish and Wildlife and other stakeholders, for applicants seeking coastal development permits for shellfish and seaweed aquaculture production and restoration projects. The guidance document was completed in December 2020 and can be accessed on the Commission's website. [61]

b) This legislation was not a 309 or CZM-driven change but the CZM program will carry out the purpose/ intent of the legislation.

[61] https://documents.coastal.ca.gov/assets/cdp/CDP%20Application%20Guidance_12.08.20.pdf

c) Outcome/Impact: The intended purpose of this guidance is to increase agency coordination, reduce regulatory duplication, reduce costs to applicants, and provide examples of growing techniques that have been approved by the Commission in past actions.

Enhancement Area Prioritization:

1. What level of priority is the enhancement area for the coastal management program?

High	_____
Medium	__X__
Low	_____

2. Briefly explain the reason for this level of priority. Include input from stakeholder engagement, including the types of stakeholders engaged.

   The aquaculture enhancement area is a medium priority for California's coastal management program. Although the increasing trend seen over the previous assessment continues, aquaculture remains a modest industry in California. The Commission's efforts over the past five years (including its regulatory compliance review and resulting permitting efforts) have established a consistent, efficient process for reviewing, evaluating, and facilitating the siting of aquaculture facilities in the coastal zone. In addition, there were a number of comments from stakeholders and members of the public supporting aquaculture during the development of the Coastal Commission's Strategic Plan. As additional facilities are proposed and pursued – and with the development of the guidance document described above – the Commission will be able to continue to refine and improve this process. With this capability and in light of the more significant challenges posed by sea level rise and other issues confronting the Commission, the aquaculture enhancement area is medium priority for California's coastal management program.

Phase II Assessment

Coastal Hazards

In-Depth Resource Characterization:
Purpose: To determine key problems and opportunities to improve the CMP's ability to prevent or significantly reduce coastal hazard risks by eliminating development and redevelopment in high-hazard areas and managing the effects of potential sea level rise and Great Lakes level change.

1. Based on the characterization of coastal hazard risk, what are the three most significant coastal hazards[62] within your coastal zone? Also indicate the geographic scope of the hazard, i.e., is it prevalent throughout the coastal zone, or are there specific areas most at risk?

	Type of Hazard	**Geographic Scope** (throughout coastal zone or specific areas most threatened)
Hazard 1	Erosion	Statewide; particularly as it relates to the severity along different shoreline types (beaches, cliffs/bluffs, wetlands etc.)
Hazard 2	Flooding/ Storms/Waves/ Tsunamis	Statewide; particular as related to beaches, wetlands, area protected by dikes/other infrastructure, and urban areas adjacent development (residential, docks/piers, infrastructure, etc.)
Hazard 3	Fire	Statewide; particularly in coastal areas with high fire hazard severity zones or where consequences of fire, such a mudslides and debris flows reach the coast.

2. Briefly explain why these are currently the most significant coastal hazards within the coastal zone. Cite stakeholder input and/or existing reports or studies to support this assessment.

   All three of the above hazards are significant because they have been and continue to be important factors that are analyzed in many of the Commission's decision-making processes (e.g. Coastal Development Permits, Local Coastal Program updates/certifications etc.). Moreover, each of these hazards will be exacerbated by sea level rise/climate change and the resulting changes may not be well understood. Many of the stakeholders who provided comments on the Commission's 2021-2025 Strategic Plan mentioned sea level rise in general, especially as they relate to protection of beaches, coastal habitats, and development.

[62] See list of coastal hazards on pg. 24 of the assessment template.

3. Are there emerging issues of concern, but which lack sufficient information to evaluate the level of the potential threat? If so, please list. Include additional lines if needed.

Emerging Issue	Information Needed
Sea level rise driven changes in coastal hazards	Additional information related to sea level rise impacts in general is necessary, including a better understanding of changes in erosion rates as it relates to differences in shoreline types; the cumulative flooding impacts in areas where rivers/estuaries combine with open ocean shoreline flooding; impacts with localized issues of subsidence, and modelling methodologies for both.
Sea level rise adaptation responses	Better understanding of implementation techniques (plus related legal information) for a variety of both common and innovative adaptation responses including but not limited to living shorelines, regional sediment management, and shoreline protective device removal. Additional information about where/under what conditions different techniques are most useful is also necessary, as is better understanding of the methodologies for monitoring sea level rise, local vertical land motion, and the effectiveness of adaptation strategies.
Saltwater intrusion & groundwater changes	Aquifer water quality information where saltwater intrusion occurs is needed. Information is also needed on risk of emergence/groundwater related flooding from saltwater intrusion elevating shallow water tables
Fire	Information on drought and heat wave effects on changing fire patterns and intensities
Dam Safety	Many of the dams in coastal watersheds are aging and threatening communities downstream. They are holding a significant amount of upstream sediment that would otherwise have reached the coast. Plans have been developed to remove several obsolete dams, but none have been implemented. Information and environmentally sound examples of ways to clean sediments trapped behind dams is needed.

In-Depth Management Characterization:

Purpose: To determine the effectiveness of management efforts to address identified problems related to the coastal hazards enhancement objective.

1. For each coastal hazard management category below, indicate if the approach is employed by the state or territory and if there has been a significant change since the last assessment.

Significant Changes in Coastal Hazards Statutes, Regulations, and Policies

Management Category	**Employed by State/Territory** (Y or N)	**CMP Provides Assistance to Locals that Employ** (Y or N)	**Significant Change Since the Last Assessment** (Y or N)
Shorefront setbacks/no build areas	Y	Y	N
Rolling easements	N	N	N
Repair/rebuilding restrictions	Y	Y	Y
Hard shoreline protection structure restrictions	Y	Y	Y
Promotion of alternative shoreline stabilization methodologies (i.e., living shorelines/green infrastructure)	Y	Y	Y
Repair/replacement of shore protection structure restrictions	Y	Y	Y
Inlet management	Y	Y	Y
Protection of important natural resources for hazard mitigation benefits (e.g., dunes, wetlands, barrier islands, coral reefs) (other than setbacks/no build areas)	Y	Y	N
Repetitive flood loss policies (e.g., relocation, buyouts)	Y (by FEMA/OES, not the CMP)	N	N
Freeboard requirements	Y	Y	N
Real estate sales disclosure requirements	Y	Y	N
Restrictions on publicly funded infrastructure	N	N	N
Infrastructure protection (e.g., considering hazards in siting and design)	Y	Y	N
Other (please specify)			

Significant Changes to Coastal Hazard Management Planning Programs or Initiatives

Management Category	Employed by State/Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Change Since the Last Assessment (Y or N)
Hazard mitigation plans	Y (by OES, CGS, not the CMP)	N	Y
Sea level rise/Great Lake level change or climate change adaptation plans	Y	Y	Y
Statewide requirement for local post-disaster recovery planning	N	N	N
Sediment management plans	Y	Y	Y
Beach nourishment plans	Y	Y	Y
Special Area Management Plans (that address hazards issues)	Y	Y	Y
Managed retreat plans	Y	Y	Y
Other (Fire hazard planning)	Y	Y	Y

Significant Changes to Coastal Hazard Research, Mapping, and Education Programs or Initiatives

Management Category	Employed by State/Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Change Since the Last Assessment (Y or N)
General hazards mapping or modeling	Y	Y	Y
Sea level rise mapping or modeling	Y	Y	Y
Hazards monitoring (e.g., erosion rate, shoreline change, high-water marks)	Y	Y	Y
Hazards education and outreach	Y	Y	Y
Other (please specify)			

2. Identify and describe the conclusions of any studies that have been done that illustrate the effectiveness of the state's management efforts in addressing coastal hazards since the last

assessment. If none, is there any information that you are lacking to assess the effectiveness of the state's management efforts?

A number of resources highlighted in Phase I Coastal Hazards Assessment that provide information regarding the status of coastal hazards also make some conclusions regarding the effectiveness of current state management efforts to date. At a macro-scale, studies conclude that risk of coastal hazards caused by climate change and sea level rise are extremely significant in terms of potential economic losses, property damage and risk to life and human health and that more focused attention and coordination is needed across sector, government agencies to address it.

Noteworthy conclusions from the Climate Readiness Institute's 2018 California Sea Level Rise Snapshots and Coastal Commission's Statewide Vulnerability Synthesis Report are provided here.

- **2018 California Sea Level Rise Regional Snapshots.** Climate Readiness Institute. [63] Current barriers identified from this process are the following: 1) there are too many different directives from state and federal agencies, 2) sufficient resources are not available for local and regional sea level rise planning, 3) some local governments do not prioritize sea level rise planning because it is not required, 4) changing science and guidance is not understood by elected official and the public, and 5) socially vulnerable communities and populations are often not engaged in the planning and decision making process.

- The Commission's Statewide Vulnerability Synthesis Report makes 10 key findings/conclusions that pertain to the effectiveness of current management and where attention or additional information is needed. These include:

  Risks to Populations: The largest coastal zone populations vulnerable to flooding from a 100-year storm plus 55 inches sea level rise are in Los Angeles, Orange, and San Diego counties.

  Environmental Justice and Social Vulnerability: Many vulnerability assessments did not account for the full range of social impacts linked to sea level rise. Vulnerability to hazards from sea level rise will have a disproportionate impact on communities with the least capacity to adapt; as such, a comprehensive approach to assessing social vulnerabilities should be used going forward to identify communities that may have higher vulnerabilities due to socio-economic factors and other risks that may be present in that community. Furthermore, as sea levels rise and public access points and recreational opportunities are lost, public access opportunities will become fewer and more limited for those who cannot afford to live at the coast.

  Development and Shoreline Protective Devices: Despite many miles of existing armoring,

[63] https://vcresearch.berkeley.edu/research-unit/climate-readiness-institute

erosion will continue to threaten existing developed areas in vulnerable communities, and this threat will increase with rising sea level.

Public Access and Recreation: Public access and recreational assets are threatened by sea level rise in every county. However, with planning, funding, and collaboration, local governments can lay the groundwork for resilient public access ways and preservation of beach areas, even as sea levels rise.

Beaches, Vulnerable Habitat and Open Space: Many communities have not yet addressed the vulnerability of their sandy beaches to rising sea levels. Of those assessments that did evaluate sediment management and beach replenishment to maintain beach area as sea levels rise, few examined the ecological consequences or the long-term economic feasibility of these responses.

Wetlands and Other Vulnerable Habitat: As sea levels rise, wetland habitat will be lost unless it can migrate inland or accrete upward. Thus, planning for wetland migration buffers and/or other adaptation strategies for sustaining wetlands will be vital to conserving the remaining wetland habitat area on the California coast.

Agricultural Resources: Sea level rise poses significant threats to agricultural resources where it can cause an increase in flooding and inundation of low-lying agricultural land, saltwater intrusion into agricultural water supplies, and/or a decrease in the amount of freshwater available for agricultural uses. Protecting agricultural resources in these cases will necessitate collaboration and long-term planning with all stakeholders, including local governments, utilities, landowners, state and federal agencies.

Energy and Other Infrastructure: Because of the interconnected nature of critical infrastructure, the high cost of networks and central facilities, and the long-term expectations for years of use, planning for sea level rise in infrastructure investments will be increasingly important. This planning will require proactive approaches, interagency collaboration, and funding to maintain community services in the most cost-effective way.

Interagency Coordination: This statewide synthesis of sea level rise vulnerability assessments highlights the importance of interagency coordination for addressing sea level rise threats that cross boundaries of individual parcels, jurisdictions, and state and federal lands.

Lessons Learned from Local Coastal Program Planning Case Studies: LCP policies to address new development, known vulnerabilities, general hazard response, and future specific adaptation methods provide the mechanism to develop resilience to sea level rise. Communities should begin planning so that actions now do not preclude future adaptation options.

Identification of Priorities:

1. Considering changes in coastal hazard risk and coastal hazard management since the last assessment and stakeholder input, identify and briefly describe the top one to three management priorities where there is the greatest opportunity for the CMP to improve its ability to more effectively address the most significant hazard risks. *(Approximately 1-3 sentences per management priority.)*

   Management Priority 1: Strengthen policy recommendations as they related to hazard avoidance and phased adaptation

   Description: Provide information and policy recommendations to incorporate both common and new, innovative approaches for avoiding and mitigating coastal hazards into CDPs and LCPs. In LCPs, providing recommendations for policies and planning that allows for phasing actions for long term adaptation can help communities sequence the projects necessary to address hazards as conditions change.

   Management Priority 2: Encourage and support implementation of nature-based strategies to address sea level rise

   Description: Past coastal hazard responses of hard armoring or beach nourishment will have different efficacy and life trajectories in the context of rising seas. Hard armoring, which is only allowable under the Coastal Act under specific circumstances, and sediment management practices are more traditional approaches that are relied upon in many areas; additional studies, feasibility analysis, pilot efforts, and potential regulatory changes are needed to develop or enhance policy recommendation and improve permitting processes to preserve and restore the protective functions of natural shorelines through nature-based sea level rise adaptation strategies.

   Management Priority 3: Consider the environmental justice impacts that sea level rise adaptation projects may cause or exacerbate in permit and planning decisions

   Description: Due to discriminatory land use policies and systematic racism, environmental justice communities often experience a disproportionate burden related to hazard management, barriers to coastal access, and pollution impacts. Adaptation planning must include outreach and engagement with environmental justice communities that are directly and/or indirectly impacted by sea level rise impacts. Outcomes of adaptation projects need to address the vulnerabilities of impacted environmental justice communities.

2. Identify and briefly explain priority needs and information gaps the CMP has for addressing the management priorities identified above. The needs and gaps identified here should not be limited to those items that will be addressed through a Section 309 strategy but should include any items that will be part of a strategy.

Priority Needs	Need? (Y or N)	Brief Explanation of Need/Gap
Research	Y	Research is needed to help better understand vertical land motion, dynamic changes to coastal/riverine systems from rising sea level, the effectiveness of adaptation strategies for various coastal types, and to support most policy changes. Management efforts directed toward coastal hazards will require research into many aspects of the coast to minimize risks from hazards, better understand where certain hazards may be of greater or lesser concern, determining whether there are underlying causes for the hazardous condition that can be managed. For example, beach nourishment may not be effective in locations where beach erosion is due primarily to land subsidence. If research determines that ground water withdrawals are a major cause for land subsidence and sea level rise in certain areas, policies directed at changes in water withdrawals may be important in a beach management effort. Work is also needed to better understand and project future changes to bluff retreat with rising sea level. Several models have been developed, but there has been little validation of the best models for different bluff situations. Also, additional research is needed into the differences in response times between changes in sea level and changes in the retreat rates of different bluff types.
Mapping/GIS/modeling	Y	Mapping, GIS and modeling are planning tools and they have been used in LCPs for many years. In addition, mapping, GIS and modeling are major components of most local government's sea level rise vulnerability assessment and LCP updates. Local-scale geology is an important control on the bluff retreat response to rising sea level, but is difficult to incorporate into generalized models. More accurate and useful projections of future bluff retreat in California will likely require the development of location-specific models; such efforts should be directed toward areas of known vulnerability, where significant resources are at stake. Significant improvements to existing bluff retreat modeling tools could result from the collection of more widespread and more accurate historical retreat rate estimates.
Data and information	Y	A large number of hazard maps, studies, tools and data

management		sets have been developed over the years. Data and information management is important now to help planners and local communities best use existing data and information. Many new maps and tools are being developed in response to various sea level rise issues and planners and local government staff will need help in determining which of these will be useful, and under what conditions.
Training/Capacity building	Y	Staff and local planners need to be trained on the available hazard and sea level rise products so that they can make the best use of these new and emerging tools.
Decision-support tools	Y	Decision-support tools bridge research and policy.
Communication and outreach	Y	Outreach is important to sea level rise vulnerability assessments and LCP updates and is fundamental to the Coastal Act.
Other (specify)		

Enhancement Area Strategy Development:

1. Will the CMP develop one or more strategies for this enhancement area?

   Yes ___x___
   No _____

2. Briefly explain why a strategy will or will not be developed for this enhancement area.

   Hazards and hazard responses are an important CCMP program concern due to extreme weather and sea level rise and other climate related impacts, and due to the corresponding impacts to public access, coastal resources, public trust lands and water quality from both hazards themselves and hazard responses. A significant number of public comments offered on the Commission's 2021-2025 Strategic Plan note that addressing climate change should be a high priority. To bolster the 2021 – 2025 Strategic Plan objective of supporting resilient coastal communities in the face of climate change and sea level rise, the Commission will develop a strategy to support more resilient, sustainable, and equitable coastal communities which includes long-term protection of coastal resources through policy guidance and potential regulatory changes that address the management priorities and needs identified herein.

Public Access

In-Depth Resource Characterization:
Purpose: To determine key problems and opportunities to improve the CMP's ability to increase and enhance public access opportunities to coastal areas.

1. What are the three most significant existing or emerging threats or stressors to creating or maintaining public access within your coastal zone? Indicate the geographic scope of the stressor, i.e., is it prevalent throughout the coastal zone or are specific areas most threatened? Stressors can be private development (including conversion of public facilities to private); non-water-dependent commercial or industrial uses of the waterfront; increased demand; erosion; sea level rise or Great Lakes level change; natural disasters; national security; encroachment on public land; or other (please specify). When selecting significant stressors, also consider how climate change may exacerbate each stressor.

	Stressor/Threat	**Geographic Scope** (throughout coastal zone or specific areas most threatened)
Stressor 1	Barriers to equitable access	All coastal California; southern California highest priority to start
Stressor 2	Sea level rise; loss of beaches, coastal trail segments, access and facilities	All coastal California
Stressor 3	Lack/ loss of affordable public access	All coastal California; southern CA highest priority to start

2. Briefly explain why these are currently the most significant stressors or threats to public access within the coastal zone. Cite stakeholder input and/or existing reports or studies to support this assessment.
    a. Barriers to equitable access: The demand for public access to California's coast continues to increase every year. Given the high cost of living along the coast, many lower income people live inland, at some distance from the coast. For these inland residents, it is expensive to drive to and park at the coast. The cost of a car, the cost of gasoline, and the cost of day use parking fees are all significant factors that inhibit interior residents from enjoying a day at the coast. In contrast, those who live within a short distance of the coast, they are able to easily and more cheaply reach and enjoy a day at the beach.[64] In addition, as discussed in the Phase I Public Access assessment, recent studies show that social barriers exist, as a result of historic exclusionary practices or other factors that limit public use and enjoyment of the coast.

[64] UCLA 2017 "Access for All: A New Generation's Challenges on the California Coast," 25 January 2017.

b. Sea Level Rise: As our oceans continue to rise, many of California's beaches will face early and significant flooding and erosion impacts.[65] As beaches are drowned and available sand areas shrink, so are important recreational assets that bring in large amounts of essential tourist dollars to local communities. Rising seas will also negatively impact our recreational infrastructure, such as coastal trail segments, beach access stairways, picnic tables, restrooms, lifeguard towers, etc. The State is working on adaptation strategies to ensure that as seas rise, these amenities are replaced on inland and upland locations.[66]

c. Lack or loss of affordable overnight accommodations: As previously highlighted in Phase I, according to recent studies, 60% of California residents enjoy just the day at the beach, they do not stay overnight due to high costs of motels.[67] The Coastal Commission found in 2016 that only 5% of coastal accommodations are economy rooms, as 70% of all rooms that have been lost since 1989 have been economy rooms. (whereas less than 10% of the rooms lost have been in the upscale and luxury categories).[68] By this action, lower income people are effectively prevented from staying overnight at the coast. This creates an injustice, especially for lower income people who live further away from the coast.

3. Are there emerging issues of concern, but which lack sufficient information to evaluate the level of the potential threat? If so, please list. Include additional lines if needed.

Emerging Issue	Information Needed
Need to fund, construct, open and operate lower cost overnight facilities to ensure that all Californians can enjoy an overnight trip along the coast	Need more detailed information on the cost to implement the necessary steps including: acquisition of property, construction and related infrastructure costs, costs and funding opportunities to operate and maintain.

[65] USGS 2017 study predicts that 31 to 67 percent of Southern California beaches could become completely eroded by 2100 in the event the ocean rises about 3 to 6.5 feet.
Vitousek, Sean & Barnard, Patrick & Limber, Patrick. (2017). Can beaches survive climate change? Journal of Geophysical Research: Earth Surface. 10.1002/2017JF004308.
[66] Ocean Protection Council. 2018. OPC Sea Level Rise Science 2018 Update.
Noble Consultants-G.E.C., Inc. 2016. Los Angeles County Public Beach Facilities Sea-Level Rise Vulnerability Assessment prepared for LA County Department of Beach and Harbors.
[67] California Coastal Conservancy. 2019. Explore the Coast Overnight Assessment
https://scc.ca.gov/files/2019/10/Explore-the-Coast-Overnight-Assessment-AB4343.pdf
[68] According to a Coastal Commission Lower Cost Visitor Serving Accommodations Public Workshop held in October 2016, since 1989, more than twice as many economy rate hotel rooms (24,720) have been lost along the coast compared to all other hotel rooms at all other price points combined (11,247). Such trends have made it that much more difficult for the lower cost consumer to access the coast.
https://www.ioes.ucla.edu/wp-content/uploads/th6-11-2016.pdf

Need to ensure that LCPs include policies to maintain public access and also encourage and require provision of lower cost visitor serving facilities.	LCP amendments and updates- need to encourage local governments to conduct studies and to adopt policies that support maintaining public access where it may be lost to sea level rise and for prioritizing low cost visitor serving amenities.
Defining and creating more equitable public access	Information about where, how, and why individuals and families from communities of color, low-income communities, and other underserved communities can or can't access coast.
Beach and beach access sustainability	Information about where beaches and access ways will be lost and where they are able to be maintained/sustained given geography/physical conditions as seas rise due to climate change; information on adjacent development/ability of beaches to migrate inland and maintain sand supply

In-Depth Management Characterization:
Purpose: To determine the effectiveness of management efforts to address identified problems related to the public access enhancement objective.

1. For each additional public access management category below that was not already discussed as part of the Phase I assessment, indicate if the approach is employed by the state or territory and if significant changes (positive or negative) have occurred at the state or territory level since the last assessment.

Significant Changes to Public Access Management

Management Category	Employed by State/Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Comprehensive access management planning	Y	Y	Y
GIS mapping/database of access sites	Y	Y	Y
Public access technical assistance, education, and outreach (including access point and interpretive signage, etc.)	Y	Y	Y
Other (please specify): Laws/policies	Y		Y; EJ provisions added to the Coastal Act and EJ Policy adopted

2. For management categories with significant changes since the last assessment, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information.
    a. Describe significant changes since the last assessment;
    b. Specify if they were 309 or other CZM-driven changes; and
    c. Characterize the outcomes or likely future outcomes of the changes.

Comprehensive access management planning

Memorandum of Understanding (Coastal Commission and State Lands Commission)

a) Significant changes since the last assessment:

The Memorandum of Understanding (MOU) was entered into by the California Coastal Commission (CCC) and the California State Lands Commission (CSLC) in September 2019 to improve coordination and collaboration between agencies. The purpose of the MOU is to encourage and facilitate the coordination and exchange of information between and among staffs of the CCC and CSLC for project proposals requiring an approval by the CCC which may also implicate the CSLC's leasing jurisdiction, granted lands oversight responsibilities, or trustee interests under the Public Trust Doctrine. As global climate changes and sea levels rise, it is critical for the agencies to coordinate early and often, share expertise, and combine efforts to maintain public trust resources and promote public access.

b) 309 or other CZM-driven changes:

The MOU is a product of a federal Coastal Zone Management Act (CZMA) grant award Section 309 strategy entitled "Managing Options to Protect Public Trust Lands and Resources."

c) Outcomes or likely future outcomes of the changes:

An expected outcome is better protection of public access for public trust resources in light of sea level rise.

GIS mapping/database of access sites

Mapping of Coastal Trail

a) Significant changes since the last assessment: Commission, with assistance from Caltrans and the Coastal Conservancy, completed California Coastal Trail status GIS mapping in June 2019. This effort is a work in progress and is designed to be updated as conditions change.

b) 309 or other CZM-driven changes: This effort was CZM-driven, but not 309 funded.

c) Outcomes or likely future outcomes of the changes: This trail information will be used to further the goal of maximizing public access by providing information showing the gaps in the Coastal Trail as well as areas of Coastal Trail needing improvement. This information will be used in LCP updates and regulatory actions to complete the Coastal Trail system.

Public access technical assistance, education, and outreach

YourCoast Web App

a) Significant changes: Since the last assessment, the Coastal Commission has released a web and iOS app (https://coastal.ca.gov/YourCoast/#/map) to provide locations of public access points for California's outer coast. This app was released in 2018 for visitors to the California

coast to easily find information about public beaches and amenities at each location. The app provides directions, photos and information about restrooms, parking, disabled access, dog rules, surfing, campgrounds and other pertinent information included in the CCC Coastal Access Guides.

b) 309 or other CZM-driven changes: The app was CZM-driven, funded by a settlement agreement to resolve permit violations in 2013.

c) Outcomes or likely future outcomes of the changes: The app provides information that was previously only available through printed guidebooks. The app format allows the agency to quickly update the information as it changes over time. This promotes the agency's mission of maximizing public access to provide recreational opportunities for all the people.

State Coastal Conservancy Explore the Coast and Explore the Coast Overnight Grant Programs

a) Significant changes since the last assessment:

To address the scarcity of overnight accommodations for low and middle income individuals and families on the coast, in 2017 the California State Legislature enacted AB 250 (Gonzalez-Fletcher), codified as Chapter 10 of Division 21 of the Public Resources Code Sections 31411-31414. AB 250 calls on the Conservancy to work with the Coastal Commission and State Parks to develop and implement the Explore the Coast Overnight program to facilitate the improvement of existing and the development of new lower-cost coastal accommodations. The goals of the Explore the Coast Overnight Program includes: Helping improve existing, and develop new lower-cost coastal accommodations; Ensuring that new or renovated coastal accommodation projects are available to all Californians, in particular low and middle-income Californians and organizations that serve under-resourced communities; Supporting innovative pilot projects; Creating and preserving a variety of lower-cost coastal accommodations; and

Maintaining and increasing the stock of lower-cost coastal accommodations along the California coast.

b) 309 or other CZM-driven changes: The efforts are CZM-driven, managed by the Coastal Conservancy.

c) Outcomes or likely future outcomes of the changes:

Explore the Coast grants and the Explore the Coast Overnight Program will expand more opportunities for all Californians to experience and learn about the coast and stay overnight at the coast, particularly individuals and youth from low and middle-income households, communities of color, at-risk or underserved populations, and others that face barriers to accessing the coast.

Other laws/policies

Environmental Justice Amendments to the Coastal Act

See Cumulative Impacts Phase I for description of this significant change.

Regarding c), outcomes as they pertain to public access, the Environmental Justice (EJ) policy states:

"The Commission will use its legal authority to ensure equitable access to clean, healthy, and accessible coastal environments for communities that have been disproportionately overburdened by pollution or with natural resources that have been subjected to permanent damage for the benefit of wealthier communities."

In addition, the EJ Policy includes a dedicated principle to Coastal Access and a number of implementation steps related to reducing barriers to and better understanding public access needs of environmental justice communities. This includes a commitment that Commission will strive for a no-net-loss of lower-cost facilities in the coastal zone, while implementing a longer-term strategy to increase the number and variety of new lower-cost opportunities. And, where a local government fails to consider environmental justice when evaluating a proposed development that has the potential to adversely or disproportionately affect a historically disadvantaged group's ability to reach and enjoy the coast, that failure may be the basis for an appeal of that local permit to the Coastal Commission.

3. Identify and describe the conclusions of any studies that have been done that illustrate the effectiveness of the state's management efforts in providing public access since the last assessment. If none, is there any information that you are lacking to assess the effectiveness of the state's management efforts?

   The public access program highlights below illustrate many of the last 5 years of accomplishments in terms of planning and completing new accessways and coastal trail segments, access barrier removal, and educational improvements.

Year	Public Access Program highlights
2015	New access at Noyo Headlands Park, new Arana Gulch multi-use pathway, New facilities and stairway access at Dan Blocker County Beach, new beach pathway to Carbon Beach in Malibu.
2016	Peter Douglas Coastal Trail in Mendocino County, the last link in the 67-mile-long Backbone Trail, new public stairway to the Malibu Road East beach, bluff face stairway at Geoffrey's Restaurant in Malibu, new city of Malibu parking area available for public use near Malibu Pier.
2017	New coastal trail segment in Arcata, new access point on northern Mendocino coast, new parking area and trail to viewing platform in Mendocino County, new access trail in City of Morro Bay, enhanced Carlsbad access with new educational kiosk, access impediments removed in Malibu, new accessway at La Conchita in Ventura County with dedication to Pater Douglas. In July, the Commission approved the first new State Parks beach campground in 30 years—the Fort Ord Dunes State Campground in Monterey County which will open up public access along 4 miles of shoreline.
2017	Completion of the report, "Status of Vertical Accessways for Northern California," October 2016 (See Phase I Public Access description).

2018	New access created at City of Eureka CA Coastal Trail segment, new Pelican Bluffs Trail in Point Arena, City of Ft Bragg Noyo Headlands coastal trail completed, and a new Santa Cruz County CCT segment.
2019	Two new beach accessways in City of Pismo Beach, Mountains Recreation and Conservation Authority (MRCA) opened two Coastal View Overlooks in the Big Rock area of Malibu, encroachments removed at Malibu's Las Flores Beach, and City of Santa Cruz upgraded a critical link in the CCT with a new Trestle Bridge. In March 2019, four state agency Directors signed a Collaboration Agreement stating their collective intent to develop and implement an updated Public Access Program for Hollister Ranch beaches.

As discussed in the Phase I Public Access section, the Coastal Commission and the Conservancy prepared reports in 2017 and 2019 that documented the status of lower cost visitor serving accommodations along the coast and found that 70% of lower cost hotels have been lost to construction of new luxury hotels. One result of that land use change is that 60% of the visitors to the coast come only for the day, overnight stays are too expensive. While the state has placed a high priority on constructing additional lower cost accommodations, there has been very little progress toward meeting this goal because of financial and management challenges such as identifying specific ways to fund, construct, operate and maintain these facilities. Case studies, both within and outside California, could help to bring information and expertise to the issue which could assist with program implementation.

In addition to proactive efforts to create new or enhance existing public access opportunities, there also have been significant improvements for public access through the resolution of Coastal Act public access violations through the use of the Commission's administrative penalty authority. Resolution for public access violations typically involve removal of physical barriers, acquisition of land or property to provide new public access. One report that describes the effectiveness of this new tool as it relates to public access is in the 2019 report to the Legislature on the implementation of Coastal Commission Administrative Penalty Authority from 2015 – 2018[69].

Identification of Priorities:

1. Considering changes in public access and public access management since the last assessment and stakeholder input, identify and briefly describe the top one to three management priorities where there is the greatest opportunity for the CMP to improve the effectiveness of its management effort to better respond to the most significant public access stressors. *(Approximately 1-3 sentences per management priority.)*

[69] https://documents.coastal.ca.gov/reports/2018/Report-to-CA-legislature/Coastal-Commission-Report-of-Administrative-Penalty-Authority-1.15.19.pdf

Management Priority 1: Environmental Justice and equity in public access

While there has been initial research that points to inequitable coastal access and identifies general barriers, there is a lack of information on where, how, and why individuals and families from underserved communities access the coast. A needs assessment of coastal access for environmental justice communities and an evaluation of this information disaggregated by race, income and other socioeconomic and demographic variables would help the Commission understand the locations, types of coastal recreation and access preferred by underserved communities in coastal and inland areas and existing inequities. This information would help the Commission develop better permit conditions, prioritize enforcement actions, and would be a resource for other state partners for funding coastal access projects. Additionally, the information could be used to inform review of LCP policies on coastal access. In the absence of a comprehensive "needs assessment", implementing the goal of providing enhanced public access in a manner that promotes environmental justice will rely on targeted approaches and case studies to provide new strategies.

Management Priority 2: Evaluate and develop management strategies to address sea level rise risks to public access/recreational opportunities due to sea level rise and the loss of beaches

Description: Public beaches are under threat from sea level rise. If Californians do not act, two-thirds of beaches in southern California could be lost to sea level rise by the end of this century. Strategies are needed to adapt access ways, parking areas, and recreational shoreline space at risk and determine where beaches and accessways can be maintained over time. Addressing coastal hazards is an important management priority as sea level rise will intensify hazards and responses such as shoreline armoring and bluff retaining structures can impact public access, coastal resources, public trust lands and water quality. See the Coastal Hazards section for more details on sea level rise adaptation and armoring impacts.

Management Priority 3: Increase opportunities for affordable access and overnight lodging along the coast

Description:
It is well documented that there has been a considerable loss of affordable overnight accommodations along the coast since 1989. The Commission needs to evaluate and find new ways to support creation of new lower cost accommodations through its regulatory and planning functions.

2. Identify and briefly explain priority needs and information gaps the CMP has to help it address the management priorities identified above. The needs and gaps identified here do not need to be limited to those items that will be addressed through a Section 309 strategy but should include any items that will be part of a strategy.

Priority Needs	Need? (Y or N)	Brief Explanation of Need/Gap
Research	Y	Needs assessment on equitable public access; where/how to sustain beaches with SLR/development patterns
Mapping/GIS	Y	Provide staff and stakeholders with the most current California Coastal Trail mapping and coastal armoring dataset information– provide desk top GIS to all CCC employees. Also, mapping of where public access sites and accessways are vulnerable to sea level rise.
Data and information management	Y	Maintain data to analyze impacts of armoring on public access and public trust lands
Training/Capacity building	Y	Work with local governments and staff to update LCPs to plan for the impacts of sea level rise and adaptation on access; also guidance to remove barriers and address low cost visitor serving amenities in LCPs
Decision-support tools	Y	See above.
Communication and outreach	Y	Hold workshops and develop online communication tools such as story maps to engage the public, environmental justice communities, local governments, and stakeholders
Other (specify)		

Enhancement Area Strategy Development:

1. Will the CMP develop one or more strategies for this enhancement area?
   Yes ___X___
   No _____

2. Briefly explain why a strategy will or will not be developed for this enhancement area.

   The Coastal Act places a high priority on maximizing public access to and along the coast. The Commission's Strategic Plan reinforces public access for all as a high priority goal. A strategy is needed to examine place-based disparities in public coastal access and increase equitable coastal access. Furthermore, loss of public access to sea level rise is a considerable concern, as well as addressing how responses to sea level rise (such as shoreline armoring) will affect coastal resources and public access.

Marine Debris

In-Depth Resource Characterization:
Purpose: To determine key problems and opportunities to improve the CMP's ability to effectively management marine debris in the coastal zone.

1. What are the three most significant existing or emerging challenges related to marine debris within your coastal zone? Indicate the geographic scope of the challenge, i.e., is it prevalent throughout the coastal zone, or are specific areas most threatened? Challenges can be land- or ocean-based marine debris reduction (e.g., behavior change to reduce waste, increase recycling, or litter less); catastrophic event-related debris; marine debris identification and removal; research and monitoring; education and outreach; or other (please specify). When selecting significant challenges, also consider how climate change may exacerbate each challenge.

	Challenges	**Geographic Scope** (throughout coastal zone or specific areas most threatened)
Challenge 1	**Marine debris reduction** including: behavior change and knowledge, and practices of individuals, businesses and other institutions to reduce the creation of plastic pollution and other marine debris	Throughout the coastal zone
Challenge 2	**Other:** Policy Implementation and compliance to meet requirements of the trash amendment within MS4 Stormwater permits	Urban/incorporated areas within the coastal zone
Challenge 3	**Marine debris identification and removal** including: source identification/fate and transport of plastic pollution and other marine debris within the coastal zone	Throughout the coastal zone

2. Briefly explain why these are currently the most significant challenges related to marine debris in the coastal zone. Cite stakeholder input and/or existing reports or studies to support this assessment.

   Challenge 1: Marine debris reduction. There is growing recognition of the extent of the plastic pollution problem, and an increasing knowledge base about the impacts to marine

wildlife, the economy, and human health. For example, according to the Convention on Biological Diversity, over 800 species have been adversely impacted by marine debris.[70] A report by Kier Associates on behalf of the Natural Resources Defense Council found that California pays at least $428 million per year to stop litter from becoming pollution that is harmful to the environment.[71] Further, the extent and impact of this global problem is documented by numerous scientific studies.

Within California, the public is increasingly concerned about plastic in the ocean. A 2019 survey of Californians by the Public Policy Institute of California found that "Overwhelming majorities view plastic and marine debris as a big problem (72%) or somewhat of a problem (18%).[72] Across age, education, income, and racial/ethnic groups, solid majorities say this is a big problem." In addition, as discussed in Phase I Assessment for Marine Debris, stakeholder input on the need to address this issue was very strong. During the early scoping phase for public input on the Commission's 2021 – 2025 Strategic Plan, there were many comments expressing concern about marine debris, plastic pollution and trash in the coastal and marine areas. In addition, there have been increasing calls for behavior change and changes in practices to prevent marine debris on the part of individual consumers, businesses, and other institutions. As a result, it is clear that there is policy consensus in California that a change in practices and new measures to reduce marine debris at the source are required to better control the flow of pollution to the ocean.

Challenge 2: Policy implementation/compliance. Local governments are at the forefront of efforts to implement changes to better control marine debris. The trash amendments[73] that were added to the statewide MS4 Stormwater permits at the beginning of 2015 by the State Water Resources Control Board require municipalities to develop plans to reach zero discharge of trash to receiving water bodies within 10 years. This requirement will be extremely difficult to achieve and could potentially require cities to budget millions of dollars for implementation of trash control measures that they may not currently have to reach their targeted reductions. Cities will be looking to innovative solutions to achieve these targets and will be looking towards all willing partners to assist them.

Challenge 3: Identification and removal. There is an ongoing need to better identify the true source and pathways of plastic pollution and other trash found within the coastal zone. Management of trash requires the identification of the most effective means of preventing it from escaping and reaching the coast. There is a general understanding that an estimated 80% of debris within the coastal zone begins on land; however, a more granular examination of the amounts coming from inland vs. the coast itself, and the pathways that trash might take to reach the coast, is needed in order to increase effective prevention.

[70] https://www.cbd.int/doc/publications/cbd-ts-83-en.pdf
[71] https://www.nrdc.org/sites/default/files/oce_13082701a.pdf
[72] https://www.ppic.org/blog/a-california-dream-less-plastic-in-the-ocean/
[73] https://www.waterboards.ca.gov/water_issues/programs/trash_control/

3. Are there emerging issues of concern, but which lack sufficient information to evaluate the level of the potential threat? If so, please list. Include additional lines if needed.

Emerging Issue	Information Needed
Microplastic/microfiber plastic pollution	Effective mitigation measures that can be employed on a broad scale
Food web impacts of plastic pollution	Additional/ongoing research to determine impacts

In-Depth Management Characterization:
Purpose: To determine the effectiveness of management efforts to address identified problems related to the marine debris enhancement objective.

1. For each additional marine debris management category below that was not already discussed as part of the Phase I assessment, indicate if the approach is employed by the state or territory, and indicate if significant state- or territory-level changes (positive or negative) have occurred since the last assessment.

Significant Changes to Management of Marine Debris

Management Category	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
Marine debris research, assessment, monitoring	Y	Y	N
Marine debris GIS mapping/database	Y	Y	N
Marine debris technical assistance, education, and outreach	Y	Y	N
Marine debris reduction programs (litter control, recycling, etc.)	Y	Y	Y
Other (please specify)			

2. For management categories with significant changes since the last assessment, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information.

    a) Describe significant changes since the last assessment;
    b) Specify if they were 309 or other CZM-driven changes; and

c) Characterize the outcomes or likely future outcomes of the changes.

See Phase I description of significant changes pertaining to marine debris reduction programs.

3. Identify and describe the conclusions of any studies that have been done that illustrate the effectiveness of the state's or territory's management efforts to reduce marine debris since the last assessment. If none, is there any information that you are lacking to assess the effectiveness of the state's or territory's management efforts?

In general, there is a lack of standardized data on coastal debris in California. The most consistent measurements come from the annual California Coastal Cleanup Day, during which volunteers track data on the items they are removing from beaches and inland waterways. This community science effort has shown itself to be an effective method for tracking broad trends in debris over time and indicate that some management efforts have been effective at reducing marine debris. For example, plastic grocery bags, which had consistently been among the top 5 items removed from California shorelines since 1988, started to drop in abundance around 2010, when the first local plastic bag bans began to take effect. By 2017, plastic grocery bags had dropped completely out of the top ten, accounting for less than 1.3% of all items removed, as opposed to close to 9% before the ban movement began. Similarly, Coastal Cleanup data has shown the effectiveness of banning smoking on beaches in reducing tobacco litter. Between 2008 – 2012, cigarette butt litter on beaches in Santa Monica (which banned smoking in 2009) dropped by 59%.

Currently, the State Water Resources Control Board is undertaking an effort to standardize data collection methods across the state, while also working with existing data sets to establish baseline information for use in measuring progress. Commission staff is working as part of that team to help better understand the state of trash data in California. It is anticipated that the outcome of this effort will greatly assist local municipalities as they provide progress updates on their efforts to achieve new water quality standards for trash

Identification of Priorities:

1. Considering changes in marine debris and marine debris management since the last assessment, as well as stakeholder input, identify and briefly describe the top one to three management priorities where there is the greatest opportunity for the CMP to improve the effectiveness of its management effort to better respond to the most significant marine debris challenges. *(Approximately 1-3 sentences per management priority.)*

Management Priority 1: <u>Incorporation of plastic pollution and other marine debris reduction measures in the Commission's permits, LCPs, and enforcement actions.</u>

Description: The Commission needs guidance for Commission staff and local governments that can require applicants and local governments to address marine debris reduction

measures in plans and permits, including but not limited to: a) Best management practices for plastic pollution and other marine debris reductions for use in all permitting and enforcement measures; b) Sample permit condition language and findings to support Coastal Act basis for plastic pollution reduction options; and c) Local Coastal Program policy guidance for addressing plastic pollution and other marine debris reductions.

Management Priority 2: Education and capacity of staff to address marine debris in permits and LCPs

Description: Commission and local government staff need education and training on the plastic pollution, reduction measures and how best management practices can be incorporated into permits, plans, and enforcement actions.

Management Priority 3: Broader public awareness and education

Description: Education and outreach is needed to build support for marine debris reductions and coastal management. This can include conducting public education on current marine debris research and mitigation measures using media articles, social media posts, and website information. More specific information should be developed for specific audiences such as permit applicants and local governments to support management priorities 1 and 2.

2. Identify and briefly explain priority needs and information gaps the CMP has to help it address the management priorities identified above. The needs and gaps identified here do not need to be limited to those items that will be addressed through a Section 309 strategy but should include any items that will be part of a strategy.

Priority Needs	**Need?** (Y or N)	**Brief Explanation of Need/Gap**
Research	Y	Research is needed into the limits or lack thereof of authority under the Coastal Act to undertake marine debris reduction measures within the permitting, LCP, and enforcement processes. Research needed into available marine debris mitigation measures, their effectiveness, and appropriate use of measures in Coastal Commission regulatory actions.
Mapping/GIS	N	
Data and information management	Y	1) Need to standardize data collection 2) Identification, including needing a more granular examination of the amounts of marine debris coming from inland vs. the coast itself, and the pathways that trash might take to reach the coast. Note: These are not needs that can be addressed directly by the CCMP/Commission's marine debris program.

Priority Needs	Need? (Y or N)	Brief Explanation of Need/Gap
Training/Capacity building	Y	Currently, plastic pollution and other marine debris mitigation efforts are addressed on an ad hoc basis within the Commission's permitting and enforcement work. There is a lack of consistency in how the issue is handled across regulatory actions, and a lack of knowledge as to how best to incorporate these measures. Because the field of marine debris mitigation techniques is rapidly evolving, it is unreasonable and inefficient to expect each analyst to independently develop the detailed knowledge needed to design mitigation measures. Given that addressing marine debris was identified as a priority issue in the Commission's latest strategic plan and 309A Assessment, there is a critical need to formalize the methods in which plastic pollution will be addressed by analysts and to provide detailed guidance, training, and ongoing adaptation as new mitigation measures become available.
Decision-support tools	Y	Decision support tools are needed to implement guidance for planners and analysts, enabling them to identify opportunities for intervention at various stages of the process and in various regulatory contexts, to achieve marine debris reductions.
Communication and outreach	Y	Public education and publicity are needed to provide support for regulatory actions and to raise awareness of the importance of marine debris reduction measures and practices. Guidance for different audiences such as permit applicants and local governments is needed.
Other (specify)		

Enhancement Area Strategy Development:

1. Will the CMP develop one or more strategies for this enhancement area?
   Yes _X_
   No _____

2. Briefly explain why a strategy will or will not be developed for this enhancement area.

   As understanding of the scope of plastic pollution along the California coast and in the Pacific Ocean grows, the need to enact pollution reduction measures grows alongside. Marine debris can adversely impact coastal resources, including Environmentally Sensitive

Habitat Areas, Marine Protected Areas, and species both endangered and healthy, and diminish the value of coastal economies.

A strategy is needed to help to identify ways to more fully protect the state's lands and resources as well and the public's safe and healthy access to those lands. Guidance around best management practices, training, and public education would provide greater consistency in how this issue is handled across regulatory actions for permits with the Commission's jurisdiction, and support local governments in reducing trash by incorporating zero-trash discharge measures to into their LCPs.

Special Area Management Planning

In-Depth Resource Characterization:
Purpose: To determine key problems and opportunities regarding the preparation and implementation of special area management plans for important coastal areas.

1. What are the one to three most significant geographic areas facing existing or emerging challenges that would benefit from a new or revised special area management plan (SAMP) or better implementation of an existing SAMP? For example, are there areas where existing management approaches are not working and could be improved by better coordination across multiple levels of government? What challenges are these areas facing? Challenges can be a need for enhanced natural resource protection; use conflicts; coordinating regulatory processes or review; additional data or information needs; education and outreach regarding SAMP policies; or other (please specify). When selecting significant challenges, also consider how climate change may exacerbate each challenge.

	Geographic Scope (within an existing SAMP area (specify SAMP) or within new geographic area (describe new area))	**Challenges**
Geographic Area 1	Estuarine areas (e.g., Humboldt Bay, Southern California wetlands and lagoons)	Lack of Information/guidance on developing sea level rise adaptation options for nature-based strategies; preserving agricultural land; addressing vulnerability of transportation/Hwy 1 in low-lying areas in light of sea level rise
Geographic Area 2	Outer coast beaches and bluffs (especially higher density developed areas)	Lack Information/guidance on how on smart growth, affordable housing, beach loss, and addressing hard armoring impacts on coastal resources can be best addressed in LCPs
Geographic Area 3	Statewide coastal zone	Addressing barriers to public access through policies in local land use plans (current lack of policies)

2. Briefly explain why these are currently the most significant challenges that may require developing a new SAMP or revising or improving implementation of an existing SAMP. Cite stakeholder input and/or existing reports or studies to support this assessment.

Local Coastal Programs (LCPs)[74] are important planning tools for protecting coastal resources and development. Of the 176 California coastal zone jurisdictions, 33 LCPS remain to be certified in the coastal zone, most of which are in Southern California. Of the 93 certified LCP segments, 34 have not been updated in any part; 42 have been updated only in part and may need future comprehensive updates to address new information and changed conditions. As discussed in the Phase I Assessments, changing shoreline conditions due to coastal hazards and sea level rise is growing risk to shoreline development and coastal resources. Many LCPs do not contain policies that directly address sea level rise and adaptation responses. Below are some of the key Coastal Act policy areas to be addressed for LCP development or update:

- **Public Access:** One of the highest priorities in the Coastal Act is the mandate to protect and maximize public access to the coast. In many areas, sea level rise will lead to a loss of public access and recreational opportunities due to permanent inundation, episodic flooding or erosion of beaches, recreational areas, and trails. Further, currently there are barriers to public access in terms of transportation to/from, affordability and other issues. With planning, funding, and collaboration, local governments can lay the groundwork for phased adaptation and future actions to preserve accessways and beach area as sea levels rise. With better understanding and coordinated efforts with relevant stakeholders/entities, land use policies can be developed to make it easier for the public to access the coast and ocean.

- **Coastal Development and Hazards:** There is a need throughout developed regions of California for shoreline management planning to address all types of development (residential, commercial, and public infrastructure) vulnerable to sea level rise. Many jurisdictions have relied on hard armoring, sand replenishment and seasonal berms as storm defenses. Understanding the viability of future reliance on seasonal berms, sand replenishment, or hard armoring in the face of sea level rise will be pivotal for many jurisdictions. Other important developed assets that need long-term sea level rise planning are energy plants, wastewater facilities, railroads, and roads. This planning will require continued multi-agency coordination and collaboration with stakeholders like the State Lands Commission, Caltrans, utilities, and the railroad authority.

- **Coastal Habitats, ESHA, and Wetlands:** Sea level rise threatens wetland and lagoon habitats because of saltwater intrusion, drowning of marsh habitat, and

[74] LCPs are equivalent to the CZMA Section 309(a)(6) definition of Special Area Management Plans (SAMPs) for important coastal areas. Under the California Coastal Act, local governments are required to complete LCPs which, as defined by the Coastal Act, should include: (a) land use plans, (b) zoning ordinances, (c) zoning district maps, and (d) within sensitive coastal resources areas, other implementing actions that are sufficiently detailed to indicate the kinds, location, and intensity of land uses, the applicable resource protection and development policies and, where necessary, a listing of implementing actions. In addition, the Commission continues to review and maintain special area plans for the four industrial ports, public works planning for special districts, including important State Park units, long range development plans for university properties, plans for the siting of energy facilities, and review of management plans for federal properties.

vegetation/habitat conversion. Additional study is needed to better understand options for preserving or restoring coastal habitats in light of sea level rise, limited upslope areas for migration, and managed water flows (i.e. tide gates).

- **Coastal Agriculture:** Sea level rise could lead to a significant increase in flooding and inundation of low-lying agricultural land, saltwater intrusion into agricultural water supplies, and a decrease in the amount of freshwater available for agricultural uses, especially around Humboldt Bay. In addition, adaptation planning for vulnerable levees raises potential Coastal Act policy conflicts between preserving agricultural lands, currently located behind levees, and restoring these areas to tidal wetlands as an adaptation approach for managing higher sea levels.

Adaptation strategies in LCPs can address hazardous areas with policies and ordinances to implement protection, accommodation, retreat, or a combination of strategies that can include nature-based approaches. Deciding which strategies to pursue in an LCP challenges decision-makers in most jurisdictions, as the balancing between priorities such as coastal resource protection and planning development is a complex process. The complexity of this challenge for decision-makers is well documented in reports pertaining to the 2015 and 2019 Coastal Commission – Local Government Workshop (see SAMP Phase I) and comment letters from local governments on the development of the Commission's 2021 – 2025 Strategic Plan.

In addition, the Commission's Statewide Sea Level Rise Vulnerability Synthesis report[75] funded by the Coastal Impact Assistance Program lays out descriptions of the coastal hazard and sea level rise threats and management priorities in each coastal county. These snapshots of priority issues by county detail the findings of extensive report review and interviews with Commission district staff in 2016.

Along with the impacts of sea level rise, the state is also facing widespread affordable housing shortages. In 2017, the State Legislature acknowledged that California is facing a severe housing crisis, and that current and future housing demands are exceeding the availability of housing units.[76] Since 2017, demands have only increased, and numerous additional laws have been enacted to address the crisis. The increasing need to house the growing population combined with shrinking shoreline areas that are safe from coastal hazards require urgent attention yet careful planning. Much of the Southern California coastline exemplifies high-density communities and heavily developed shorelines that are facing pressure to continue to redevelop in hazardous areas and to armor the shoreline to protect against flooding and erosion. Developing new or updating LCPs will be a way to promote smart growth, meet affordable housing requirements, and increase housing density in safe areas while also reducing greenhouse gas emissions in the coastal zone.

[75] https://www.coastal.ca.gov/climate/slr/vulnerability-adaptation/vulnerability/#/map

[76] California Legislative Information. Government Code Section 65852.150 pursuant to Senate Bill 1069 (Wieckowski) and Assembly Bill 2299 (Bloom), effective January 1, 2019. https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV§ionNum=65852.150

3. Are there emerging issues of concern, but which lack sufficient information to evaluate the level of the potential threat? If so, please list. Include additional lines if needed.

Emerging Issue	Information Needed
Environmental justice	Climate change and sea level rise hazards will have disproportionate impacts on communities with the least capacity to adapt and may exacerbate existing environmental injustices and cumulative impacts from other environmental hazards. More information is needed on understanding these impacts on public access, subsistence fishing, recreational opportunities, jobs, housing balance, and other economic benefits of the coastal economy.
Integrating climate change sustainability concepts into land use planning, greenhouse gas mitigation, and smart growth	Information on actions to implement smart growth and other sustainable development strategies to reduce greenhouse gas emissions to slow climate change over the long term. Land use plan options for facilitating integration of climate change mitigation and adaptation strategies to assist local governments in LCP development.
Climate change adaptation and sea level rise; impacts to public access, beaches, and other coastal resources from groundwater rise, shoreline armoring, and erosion.	Information on potential impacts and development of policy and ordinance alternatives to assist local governments in adaptation through LCP development. Enhanced procedures for condition compliance.

See also challenges presented in response to question 1.

In-Depth Management Characterization:
Purpose: To determine the effectiveness of management efforts to address identified problems related to the special area management planning enhancement objective.

1. For each additional SAMP management category below that was not already discussed as part of the Phase I assessment, indicate if the approach is employed by the state or territory and if significant state- or territory-level changes (positive or negative) have occurred since the last assessment.

Significant Changes Related to Special Area Management Planning

Management Category	Employed by State or Territory (Y or N)	CMP Provides Assistance to Locals that Employ (Y or N)	Significant Changes Since Last Assessment (Y or N)
SAMP research, assessment, monitoring	Y	Y	Y

SAMP GIS mapping/database	Y	Y	Y
SAMP technical assistance, education, and outreach	Y	Y	Y
Other (please specify) SAMP Financial Assistance	Y	Y	Y

2. For management categories with significant changes since the last assessment, briefly provide the information below. If this information is provided under another enhancement area or section of the document, please provide a reference to the other section rather than duplicate the information.
    a. Describe significant changes since the last assessment;
    b. Specify if they were 309 or other CZM-driven changes; and
    c. Characterize the outcomes or likely future outcomes of the changes.

SAMP research, assessment, monitoring

a) As noted in the Phase 1 SAMP Assessment, since 2015, two new Implementation Plans have been certified, one new Land Use Plan was certified, and 20 other LCP Amendments significantly updated LCPs (for a total of 23 actions), including the addition or update of local Community Plans, Area Plans, Specific Plans, and Master Plans as well as the addition of new policies and provisions in LCPs to address sea level rise. Although more than 85 percent of the coastal zone is now governed by cities and counties (total 76 local governments: 15 counties, 61 cities) with certified LCPs, this means the Commission now works with 60 plus local governments on LCP implementation, including local appeals, monitoring hundreds of local development actions, and processing approximately over 100 LCP amendments a year. In addition, the Commission has awarded 40 local governments with LCP funding and these grants have been vehicles to promote research and assessment of local priorities.

b) While the grant awards were funded through other state funds, 309 guidance documents (discussed in Phase I and below) and communication initiatives contributed to these efforts.

c) New or revised polices and implementing ordinances will guide future development, including recognition of sea level rise projections and associated hazards in new or updated LCPs. Amended and/or updated LCPs will also incorporate policies and standards that address sustainable development, public access, multi-modal transportation, and cumulative impacts.

SAMP GIS mapping/database

See Phase I Cumulative and Secondary Impacts Resource Characterization #5.

SAMP technical assistance, education, and outreach

a) Significant technical assistances in the form of policy guidance was provided in order to enhance the LCP Program and to ensure LCP updates addressed emerging issues and new information. Many of these policy guidance documents have already been highlighted in Phase I Assessments for Cumulative and Secondary Impacts, SAMP, and Coastal Hazards. In addition,

under the Commission's 2011 – 2015 309 Strategy, Commission staff built out a digital LCP library and procedural guidelines to populate and maintain the most current certified versions of LCPs to support more effective implementation of the LCP program. This digital library of LCP continues to be built upon as new LCP and LCP amendments are certified.

In addition, there have also been significant changes regarding outreach and education during the assessment period, and there has been communication and collaboration with the local government partners and improved mechanisms supporting efficiency and effectiveness of the LCP development and amendment process. These included:

- Continued working with a Local Government Working Group of city and county officials to assist in implementing improvements to the LCP certification and amendment process and participating in meetings of the Coastal Working Groups within the League of California Cities (LOC) and the California State Association of Counties (CSAC).
- Collaborated on Short-Term Vacation Rentals issues with local governments and provided information and guidance on ways to accommodate vacation rentals in a way that respects local context. Provided an opportunity for public input and discussion of Commission Staff's preliminary recommendations for strengthening the Commission's program on lower cost overnight accommodations in November 2016.
- In 2015 and 2019, joint workshops between Coastal Commission and Local Government (elected leaders), led by local government representatives from the League of Cities and California State Association of Counties Coastal Issues Working Groups to discuss city and county issues and concerns related to interactions with the Commission on Short-Term Rentals, Sea Level Rise, and the Local Coastal Program process, as described in SAMP Phase I.
- Provided sea level rise related informational briefings in 2019 and 2020 with outside experts at multiple Commission hearings to educate and highlight sea level rise planning considerations.
- Held a forum in Northern California on Adapting to Sea Level Rise on Humboldt Bay's Agricultural Lands.
- Conducted a webinar for local governments briefing them on the available coastal agriculture guidance documents.
- Presented to community-based organizations/groups on sea level rise planning issues including for the Sunset Community Plan.
- Compiled resources to aid communication and dissemination of LCP policy guidance with Coastal City and County Planning Directors.

b) Most of these efforts were funded through the 309 enhancement program; these are all CZM-driven changes.

c) Expected outcomes are new or revised policies and implementing ordinances that will guide future development consistent with the Coastal Act, including recognition of sea level rise projections in new or updated LCPs.

SAMP Financial Assistance

a) The Commission has awarded $8.3 million dollars in 6 rounds of grant funding to 40 local governments to develop or update LCPs with a focus on planning for climate change and sea level rise since 2014. Changes since last Assessment: local assistance grants are being funded by state-funding from the Greenhouse Gas Reduction Fund (GGRF) and is now part of the Commission's baseline budget. Funds will be made available as long as there are sufficient revenues from the state's carbon market sales.
b) No 309 funds for financially assistance were used; this is a CZM program effort/driven change.
c) Expected outcomes are new or revised polices and implementing ordinances that will guide future development consistent with the Coastal Act, including recognition of sea level rise projections in new or updated LCPs.

3. Identify and describe the conclusions of any studies that have been done that illustrate the effectiveness of the state's or territory's special area management planning efforts since the last assessment. If none, is there any information that you are lacking to assess the effectiveness of the state's or territory's management efforts?

The Commission tracks agency and local government planning and permit activity using the Commission's Coastal Data Management System (CDMS). The Commission has been generally successful implementing the LCP requirement of the Coastal Act, as 63 counties and cities are now issuing permits under a Commission-approved, certified LCP (out of 76 coastal zone local governments). The coastal jurisdictions that are not issuing any coastal permits include 1 county and 12 cities, 11 of which are in southern California. In addition, some local governments with certified LCPs have not yet achieved certification in all segments or chose to submit them in phases, and therefore, the Commission is still issuing CDPs in portions of their jurisdictions. As such, one marker of the success of the program is to have certified LCPs for all segments of the coastal zone. As described in SAMP Phase I, this data is provided annually to the Commission in the LCP Status report. In addition, the Commission's Executive Director reports annually to the Commission with a summary of Commission efforts and significant LCP decisions.

LCPs are effective local blueprints for Coastal Act policies, implementing statewide planning policy in a locally specific context when kept current with changing conditions and local needs. Incomplete or out-of-date LCPs lead to conflict and delays in development approvals, and ultimately, less effective resource protection and less resilient communities. One marker of the effectiveness is the number of appeals or local issued permits that raise significant issues with respect to the permit being issued consistent with the certified LCP. The number of appeals will vary by jurisdiction, and this information is used when working with local governments to encourage submittal of LCP updates to improve effective implementation. The Coastal Commission's semi-annual federal progress reports provide a summary of permit appeals every six months.

Most importantly many LCPs are significantly out-of-date and lack critical policies to address sea level rise. Thus, one of the Commission's highest priorities over the past five years has been to update LCPs and certify new LCPs to address hazards posed by sea level rise and climate change. The Coastal Act creates strong incentives for local governments to develop LCPs and obtain certification, but weaker incentives for local governments to revise their LCPs when necessary to address relevant issues of statewide concern, such as sea level rise. The Coastal Act imposes no penalty for inaction on LCP updates, and local governments may have other priorities or may lack the resources to prioritize an LCP update.[77]

To help local governments do this work, the Commission has awarded 40 local governments with grants since 2013, totaling more than $8 million. As a result, 32 communities have completed coastal hazard vulnerability assessments, and many have begun drafting new policies and ordinances for both SLR updates, as well as comprehensive LCP updates and certifications. During the last five years, progress has been made with the City of Newport Beach and City of Pacific Grove have new certified LCPs and the City/County of San Francisco and City of Santa Barbara have completed certified LCP updates. Still more cities and counties have either LUP or IP updates initiated, submitted, or approved.[78] Through the administration of the LCP grant program since 2014, the Commission has learned that more time is needed than initially anticipated for translating the results of vulnerability studies and adaptation plans into policy and ordinance adoption. To support this process, the Commission has been working on model policies for policy guidance for both residential and infrastructure development types as well as encouraging the evaluation phased adaptation approaches in LCPs .

Identification of Priorities:

1. Considering changes with coastal resource protection or coastal use conflicts within defined geographic areas, special area management planning activities since the last assessment, and stakeholder input, identify and briefly describe the top one to three management priorities where there is the greatest opportunity for the CMP to improve their ability to prepare and implement special area management plans to effectively manage important coastal areas. *(Approximately 1-3 sentences per management priority.)*

   Management Priority 1: Support LCP planning through technical assistance and development of LCP policies and ordinances to protect beaches, wetlands and other coastal resources, including public access as seas rise that can be included in new or updated LCPs, especially for jurisdictions with LCP grants (See also 2021-2025 Strategic Plan Objective 4.4)

   Description: The local jurisdictions awarded LCP planning grants are high priority for program enhancements that will assist local governments preparing and implementing updated LCP policies and ordinances to better manage coastal resources and public access

[77] Jacobs, J. (2016). A Bug in the Programs: The Need to Create Greater Incentives for Local Coastal Program Updates. Stan. Envtl. LJ, 36, 3.
[78] Coastal Commission LCP Grant Status Table: https://coastal.ca.gov/lcp/grants/

and support nature-based adaptation solutions in the area of addressing hazards due to sea level rise and other climate change adaptation needs.

Management Priority 2: Support LCP planning through technical assistance that provides guidance on integrating climate change mitigation, smart growth, affordable housing and maximizing public access.

Description: Promote actions in LCPs and coastal development permits to implement smart growth and other sustainable development strategies to provide housing and reduce greenhouse gas emissions to slow climate change over the long term. Additionally, support land use plan options for integration of climate change mitigation (e.g., carbon sequestration; reducing vehicle miles traveled and energy consumption) and adaptation strategies to assist local governments in developing in areas safe from high geologic, flood, and fire hazards.

Management Priority 3: Support LCP planning through technical assistance that addresses disproportionate burdens to and ensure equal benefits to environmental justice communities in LCPs, including as it intersects with planning for sea level rise; incorporate meaningful engagement practices and equitable public participation processes throughout the entire LCP planning process.

Description: Provide policy guidance that supports local governments to amend their LCPs or certify new LCPs that address environmental justice issues. Through the Commission's role in LCP planning, support more meaningful engagement, equitable process, effective communication, and that the benefits of coastal protection are distributed equally/accessible to everyone.

2. Identify and briefly explain priority needs and information gaps the CMP has to help it address the management priorities identified above. The needs and gaps identified here do not need to be limited to those items that will be addressed through a Section 309 strategy but should include any items that will be part of a strategy.

Priority Needs	**Need?** (Y or N)	**Brief Explanation of Need/Gap**
Research	Y	Need for information on beach users to support development of equitable sea level rise adaptation strategies for protecting beaches that address disproportionate burdens and benefits to environmental justice communities. Continued need to address potential coastal hazard impacts using phased adaptation strategies, and include information on groundwater intrusion risk, beach migration potential, and habitat resilience. Financial risk and legal analysis that support sea level rise planning and implementation of adaptation strategies.

Priority Needs	Need? (Y or N)	Brief Explanation of Need/Gap
Mapping/GIS	Y	Update and distribute GIS data layers such as the California Coastal Armoring Dataset to assist in planning and permitting. Support completion of statewide Coastal Trail mapping, attribution, and support planner review/utilizing this information in LCPs.
Data and information management	Y	Continued need to build out electronic versions of all current certified LCPs and keep them up to date in the digital LCP library. Expanded quantitative evaluation of policy implementation in all enhancement areas.
Training/Capacity building	Y	Expanded training for both Commission and local staff in the LCP program and in other enhancement areas.
Decision-support tools	Y	Funding needed for decision-support tools for planners, especially to support adaptation planning pathway evaluation.
Communication and outreach	Y	Communicating with the public about sea level rise and other coastal management issues. Enhanced mechanisms to share best practices and policies and incorporate meaningful engagement practices and equitable public participation processes to support LCP planning. Development of ways to implement better regional coordination and implementation of regional/cross jurisdictional strategies.
Other (specify)	Y	Staff and financial resources for local governments to update LCPs.

Enhancement Area Strategy Development:

1. Will the CMP develop one or more strategies for this enhancement area?
   Yes __x____
   No _____

2. Briefly explain why a strategy will or will not be developed for this enhancement area.

LCP are an integral element to implementing the Coastal Act. Updating and developing new LCPs to address key enhancement area issues like coastal hazards and public access is a high priority for the Commission; this is also reflected in the agency's recently adopted 2021-2025 Strategic Plan.

As discussed above, in SAMP Phase I and II assessments, LCPs need to be kept up to date to adequately manage coastal resources, especially as climate change and sea level rise will present greater challenges to managing coastal hazards and public access for coastal

jurisdictions with outdated plans. In addition, it is a state priority to support planning for development that meets new housing requirements for areas that are safe from current and future hazards, including fire hazards, sea level rise and flooding hazards, can protect community investments and help avoid an inequitable burden on low income and environmental justice communities. A strategy is needed to support local governments in updating LCPs or developing new LCPs for uncertified areas, that will enable progress in addressing the many issues described in the Coastal Hazards, Public Access, and SAMP assessments.

Strategy

Strategy 1. Building Resilient and Sustainable Communities through Planning and Permitting

I. Issue Area(s)

The proposed strategy or implementation activities will support the following high-priority enhancement areas *(check all that apply)*:

- ☐ Aquaculture
- ☐ Energy and Government Facility Siting
- ☒ Coastal Hazards
- ☐ Ocean/Great Lakes Resources
- ☒ Special Area Management Planning
- ☐ Cumulative and Secondary Impacts
- ☒ Wetlands
- ☐ Marine Debris
- ☐ Public Access

II. Strategy Description

A. The proposed strategy will lead to, or implement, the following types of program changes *(check all that apply):*

☐A change to coastal zone boundaries;

☒ New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;

☒ New or revised local coastal programs and implementing ordinances;

☐ New or revised coastal land acquisition, management, and restoration programs;

☐ New or revised special area management plans (SAMP) or plans for areas of particular concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,

☒ New or revised guidelines, procedures, and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government, and other agencies that will result in meaningful improvements in coastal resource management.

B. Strategy Goal

The goal of this strategy is to build more resilient coastal communities and coastal resources in light of coastal hazards associated with climate change and sea level rise by evaluating Coastal Commission regulations and developing new policy guidance documents. The review of regulations and development of policy documents will support planning for and permitting of climate adaptation and climate change mitigation/impact reduction efforts that result in more resilient communities and coastal resources.

C. *Describe the proposed strategy and how the strategy will lead to and/or implement the program changes selected above.*

Strategy 1 focuses on updating the Coastal Commission's portion of the California coastal management program to build more resilient coastal communities. Broadly, resilience refers to the ability to anticipate, reduce, accommodate, or recover from a disturbance. Building climate resilience requires not just integrating ways to address potential climate change impacts into plans, but also adjusting how communities plan to be flexible in the face of future uncertain impacts. Communities that facilitate planning and permitting of nature-based adaptation, promote equity in process and outcomes, and implement climate mitigation efforts in local land use plans consistent with the Coastal Act will build resilience. Thus, Strategy 1 will help communities anticipate risks, reduce future impacts, accommodate changes to come, and recover from disasters such as wildfire or flooding. This strategy is directly aligned with Goal 4 of the Coastal Commission's recently adopted 2021 - 2025 Strategic Plan, *Support Resilient Coastal Communities in the Face of Climate Change and Sea Level Rise*, and will support the Commission in carrying out several actions across multiple goals in the plan.

More specifically, this strategy will result in two program changes and be carried out in two parts. Ultimately, these program changes will result in a third program change of updated local coastal plans (also known as "Local Coastal Programs" under the Coastal Act, or LCPs); however, the Commission does not expect to achieve updates to LCPs during the first five years of completing the strategy.

Under the first part of the strategy, staff will evaluate Coastal Commission regulations to determine if updates are needed to better facilitate or accelerate sea level rise planning and implementation of sea level rise adaptation projects that are consistent with the Coastal Act. This part of the strategy will focus on exploring how nature-based adaptation approaches can enhance and protect natural resources whether any regulatory changes are needed to implement them For example, these approaches could provide potential pathways to sustain the significant ecosystem services of estuarine wetlands as well as recreation on sandy beaches. Commission staff will also revaluate policies and regulations related to reducing risks of hazards to development.

The strategy could include one or more rulemaking efforts that are required to change any Coastal Commission regulation based on whether the Commission determines that additional regulatory updates are needed. This effort will help the Commission make progress on achieving Action 6.3.4 of its Strategic Plan, to update regulations to advance sea level rise management strategies. The evaluation will also inform development of policy guidance documents described below. To the extent it is determined that regulation changes are not needed, interpretive policy guidance can also assist in advancing sea level rise adaptation planning.

The second part of the strategy will consist of developing a series of policy guidance documents that are formally adopted by the Commission on a number of climate-related topics to advance

and support sea level rise adaptation, including addressing equity and environmental justice in sea level rise adaptation planning, adaptation to other climate impacts such as wildfire and drought that pose coastal hazards to communities and coastal resources, and to advance climate mitigation in land use planning and permitting such that hazards associated with climate change and sea level rise are reduced. Commission staff will engage with state and local agency partners, stakeholders and the public in the development of these policy guidance documents.

Regarding addressing equity and environmental justice in sea level rise adaptation planning, Commission staff have started some of this work in a 309 task in its FY 2020 grant under the 2016 – 2020 Strategy 2, Strengthening Technical Assistance through Local Coastal Program Planning and Implementation to begin the engagement work with community-based organizations and conduct research and literature review to inform the basis of policy guidance. The FY 2020 grant task will result in an outline for the policy guidance; the work proposed in this strategy will build upon the Commission's FY 2020 grant task outcome. In addition, the other policy guidance documents proposed for development will include environmental justice and equity elements, and/or reference the recommendations contained in equity and environmental justice in sea level rise adaptation planning where relevant.

Finally, this strategy will also include program change implementation in the form of outreach, education, and training on the adopted policy guidance documents, including development of associated informational resources and/or presentations to assist staff and key partners with implementation of the program changes. The intended audience for policy guidance includes local governments, state agencies, and Coastal Commission staff. The information contained in the guidance can also be used to educate members of the public.

The specific policy guidance documents that the Commission plans to develop under this strategy include:

1) Policy guidance on addressing equity and environmental justice in sea level rise planning (*Strategic Plan Action 5.1.3*).
2) Policy guidance on resiliency planning for wildfire risk through vegetation management and other land use approaches consistent with the Coastal Act (*Strategic Plan Action 4.3.4*)
3) Policy guidance on protecting beaches and evaluating shoreline management options for implementing nature-based and phased adaptation approaches to hazards posed by sea level rise. This guidance will also include policy and procedural recommendations for improving permitting of restoration projects that meet multi-benefit objectives for habitat/wetlands enhancement, public access, and flood-risk reduction (*Strategic Plan Actions 4.3.5, 4.4.5*).
4) Policy guidance for local governments to reduce greenhouse gas emissions, sustainable development standards and smart growth land use planning strategies (*Strategic Plan Actions 4.5.2, 4.5.3*)

III. Needs and Gaps Addressed

Identify what priority needs and gaps the strategy addresses and explain why the proposed program change or implementation activities are the most appropriate means to address the priority needs and gaps. This discussion should reference the key findings of the assessment and explain how the strategy addresses those findings.

Addressing the top three hazards of erosion, flooding, and fire, especially with regard to adapting to the impacts of these hazards intensified by climate change, is a high priority. Accelerating changes in the extensiveness and intensity of these hazards due to a warming climate heighten the need to provide information and policy recommendations to incorporate both common and new, innovative approaches for avoiding and mitigating coastal hazards into permits and LCPs. The Commission considers many nature-based approaches for sea level rise adaptation to be innovative, especially when they provide multi-benefits for recreation, habitat, and flood protection. The work done under the proposed strategy will build and strengthen the policy tools available to support implementation of these approaches at both the planning and permitting phases, thus protecting resources while also preparing communities for wildfire, flooding, and coastal erosion. Commission staff will look to case studies and the application of Coastal Act policies in current projects underway to inform development of the policy guidance.

Building more resilient communities means avoiding hazards where possible, responding to the hazards as they occur, and developing in sustainable ways. In the case of wildfire, guidance is needed on reducing wildfire risk in coastal areas with high fire hazard severity zones or where fire-inspired mudslides and debris flows reach the coast. Proactive vegetation management consistent with the Coastal Act can better prepare coastal communities to manage wildfire. Reducing greenhouse gas emissions, sustainable development standards and smart growth land use planning strategies are also needed tools for building more resilient communities that avoid hazards and mitigate for impacts of development.

The Special Area Management Planning, Coastal Hazards, and Public Access Assessments identified the need to plan to protect coastal resources like sandy beaches, estuarine ecosystems, and wetlands from sea level rise. Guidance on planning for sea level rise and associated flooding and erosion with phased adaptation approaches will address this important need. Hard armoring, which is only allowable under the Coastal Act under specific circumstances, and sediment management practices are more traditional hazard management approaches that are widely understood to be short or medium-term solutions. Additional studies, feasibility analyses, pilot efforts, and potential regulatory changes are necessary to develop or enhance policy recommendations and improve permitting processes to preserve and restore the protective functions of natural shorelines, both on the outer coast and in estuarine areas, through nature-based sea level rise adaptation strategies.

Another theme that is consistent in the Special Area Management Plan, Coastal Hazards, and Public Access Assessments is a need to incorporate environmental justice throughout the LCP process, by targeting engagement to include all stakeholders, considering impacts on environmental justice communities, and planning for equitable outcomes from adaptation. This

strategy's guidance for addressing equity and environmental justice in sea level rise planning will provide information to better prepare planners and analysts.

IV. Benefits to Coastal Management

Discuss the anticipated effect of the strategy, including the scope and value of the strategy, in advancing improvements in the CMP and coastal management, in general.

This strategy addresses a significant challenge of the California Coastal Management Program in planning for climate change: reducing hazard risk with phased adaptation planning that embraces multi-benefit projects where habitat, public access, and flood risk reduction can coexist. Facilitating new nature-based adaptation projects with policy guidance will benefit the state and nation by providing a larger set of examples from which to learn and improve upon. As the guidance on nature-based projects, wildfire risk reduction, smart growth, and equity in adaptation informs LCP updates, adaptation implementation will advance and pave the way for consideration by additional coastal communities. Thus, planning for resilient coastal communities by using innovative management and construction techniques, considering costs and benefits beyond the parcel scale, and using a participatory approach that includes socially disadvantaged populations will improve coastal management for the state.

V. Likelihood of Success

This strategy has a high likelihood of success because it is directly aligned with the agency's recently adopted Strategic Plan and will support the Commission's abilities to carry-out a number of high priority Governor's initiatives and Executive Orders. These Executive Orders direct state agencies to prioritize climate mitigation and adaptation efforts and to protect the state's biodiversity and coastal waters through finding efficiencies in permitting and accelerated efforts to conduct restoration projects. In addition, the Coastal Commission and local governments recently adopted a set of Joint Sea Level Rise principles in support of progress on sea level rise adaptation planning in LCPs. The Commission will be able to leverage this work and framework established with the League of Cities and California Association of County Supervisors (CSAC) to address policy areas of mutual interest, work through challenging climate policy issues to support achievement of policy guidance outcomes.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps that will lead toward or achieve a program change or implement a previously achieved program change.

Strategy Goal: Build resilient, sustainable communities through updated regulation and policy guidance that supports nature-based adaptation solutions, restoration and smart growth/sustainable development that reduces climate impacts.
Total Years: 5 years
Total Budget: $950,000 - $972,000

Year(s): Year 1
Description of activities: Activities during year one will include environmental justice and equity in sea level rise planning, regulatory analysis in support of advancing sea level rise planning and shoreline restoration, and background research on wildfire and sustainability topics. Activities will consist of the following:

1) Building on the FY 2020 grant task, develop draft policy guidance to address environmental justice and equity in sea level rise planning with robust community engagement.
2) Conduct an analysis of Commission regulations that guide implementation of Coastal Act policies related to protection of land and marine resources as well as policies on hazard reduction and restoration to determine if any updates are needed. The focus of this evaluation will be on regulations that pertain to implementation of nature-based adaptation strategies and reducing risks from coastal hazards.
3) Evaluate strategies for increasing wildfire resilience in coastal communities through LCP planning and permitting that employs multiple fire prevention and planning approaches, including vegetation management, building materials, siting, and setbacks. This effort will be informed by and will support the ongoing coordination work started as part of the state's Vegetation Management Treatment program initiative that began 2019 with the California Board of Forestry, CalFire, the California Natural Resources Agency and others. This initiative is highlighted in the Coastal Hazards Assessment (Phase I).
4) Begin work on developing a set of principles related to sustainability and reduction of greenhouse gas emissions (GHGs) in land use planning through research, permit history and LCP review and current state laws and policy requirements. Based on the research, develop a work plan for phased completion of sustainability topics.

Major Milestone(s): Draft policy guidance addressing equity and environmental justice in sea level rise planning; summary report analysis with staff recommendations for updates to the Commission's regulations to advance sea level rise planning and implementation of projects, especially as it relates to accelerating permitting for restoration projects; ; summary of strategies for wildfire resilience; draft set of principles and work plan for sustainability topics.

Budget: $175,000 - $200,000

Year(s): Year 2 -3
Description of activities: Activities during years two and three will focus on developing policy guidance for shoreline management, nature-based strategies, reducing wildfire risk in the coastal zone and principles for sustainability. Activities will consist of the following:

1) Using regulation analysis, formalize recommendations into policy guidance that seeks to accelerate permitting of shoreline restoration and nature-based adaptation projects or pursue regulation changes through the formal state rule-making process.
2) Finalize policy guidance addressing environmental justice and equity in sea level rise planning for Commission adoption; conduct outreach and training on adopted guidance for Coastal Commission staff, local governments, other state agencies and interested

stakeholders. Related products may also be developed to provide information to the public.

3) Conduct an analysis of beaches, locations and shoreline conditions to support identification locations where beaches are most at risk and nature-based strategies that may be viable interim or long-term solutions to mitigate hazards posed by sea level rise. This work will leverage existing information and reports about coastal habitat vulnerability to sea level rise and other datasets, such as the Coastal Commission Coastal Armoring Database Project. Use this information to develop draft policy guidance on protecting beaches and evaluating shoreline management options for implementing nature-based and phased adaptation approaches to hazards posed by sea level rise.
4) Advance work on wildfire risk reduction and vegetation management by developing draft policy recommendations for LCPs in Year 2 and finalizing the draft guidance for Commission review and adoption in Year 3.
5) Use the research, work plan and recommendations from Year 1 to prepare and finalize for Commission review and approval a set of sustainability policy principles to support development of topical guidance documents to implement the principles to encourage smart growth and GHG-reductions in line with Coastal Act and other relevant state requirements in permitting and LCPs. Begin work on developing 1 - 2 topical guidance modules for use by Commission staff and local governments.
6) Conduct outreach and engagement with stakeholders and interested parties (i.e. non-governmental organizations, realtors, and others), and through the Coastal Commission, League of Cities and CSAC framework to develop the guidance documents described above.

Major Milestone(s): Policy guidance or rule-making submittal for changes needed to advance permitting of shoreline restoration, nature-based adaptation; summary of analysis of beaches, hot spots for beach loss and shoreline management options recommendations; draft policy guidance on shoreline management options. Draft wildfire policy guidance. Final sustainability policy principles to inform subsequent guidance on sustainable development and GHG reduction and development of 1 - 2 sustainability topical guidance documents.

Budget: $400,000 - $420,000

Year(s): 4
Description of activities: The main focus of year 4 will be finalizing policy guidance on shoreline management options, through public and stakeholder engagement, coordination with partner agencies and local government working groups, and propose to the Coastal Commission for adoption. In addition, based on the sustainability topics work plan, staff will continue to develop sustainability guidance for Year 4.

Major Milestone(s): Finalize and propose for Commission adoption policy guidance on shoreline management options, with focus on nature-based solutions and phased adaptation Complete 1 –2 sustainability guidance documents on encouraging smart growth and GHG -

reductions in land use planning and permits consistent with the work plan and sustainability principles.

Budget: $170,00 – $190,000

Year(s): 5
Description of activities: The focus of year 5 will be implementation of the adopted guidance developed in years 3 - 4, including development of training and outreach materials, and conducting outreach, training, and education. Workshops on the guidance documents will be widely publicized and noticed, and include supporting materials targeted for the general public as well as for local governments. In addition, staff will complete the final set of sustainability guidance documents based on the work plan and sustainability principles.

Major Milestone(s): Training materials and outreach related to adopted guidance document (s), conduct training and outreach on adopted guidance. Final sustainability topical guidance documents.

Budget: $160,000 – $172,000

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the CMP has made, if any, to secure additional state from other sources to support this strategy.*

At this time, Commission staff believe that the 309 funding as budgeted will support carrying out this strategy. If additional funds are needed, Commission will consider available funding resources at the state-level, such as funding from the Greenhouse Gas Reduction fund or other state funding sources dedicated to analyzing and addressing climate impacts.

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out all or part of the proposed strategy, identify these needs.*

At this time, the Commission believes it has the necessary technical capacity to carry out this proposed strategy. The Commission will also seek technical knowledge and assistance in working with key agency partners and through existing state-level working groups in place to advance state efforts on implementation of the executive orders described above.

VIII. Projects of Special Merit (Optional)

If desired, briefly state what projects of special merit the CMP may wish to pursue to augment this strategy. (Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above.) The information in this section will not be used to evaluate or rank projects of special merit and is simply meant to give CMPs the option to provide additional information

if they choose. Project descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not provide detailed project descriptions that would be needed for the funding competition.

The Commission leaves open the possibility to pursue a project of special merit under this strategy, but a specific project has not been identified at this time.

Strategy 2. Public Access for All with Sea Level Rise

I. Issue Area(s)

The proposed strategy or implementation activities will support the following high-priority enhancement areas *(check all that apply)*:

- ☐ Aquaculture
- ☐ Energy and Government Facility Siting
- ☒ Coastal Hazards
- ☐ Ocean/Great Lakes Resources
- ☒ Special Area Management Planning
- ☐ Cumulative and Secondary Impacts
- ☐ Wetlands
- ☐ Marine Debris
- ☒ Public Access

II. Strategy Description

A. The proposed strategy will lead to, or implement, the following types of program changes *(check all that apply):*

☐ A change to coastal zone boundaries;

☐ New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;

☒ New or revised local coastal programs and implementing ordinances;

☐ New or revised coastal land acquisition, management, and restoration programs;

☐ New or revised special area management plans (SAMP) or plans for areas of particular concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,

☒ New or revised guidelines, procedures, and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government, and other agencies that will result in meaningful improvements in coastal resource management.

B. ***Strategy Goal***

The goal of this strategy is to develop guidance and informational resources for planners at the Commission and in local government to ensure public continued access in light of sea level rise and to reduce barriers to public access in support of the Commission's goal to maximize coastal access for all in the agency's 2021 – 2025 Strategic Plan. This objective consists of the following actions:

2.6.1 Identify locations where public access ways, the CCT or roadways that facilitate access to these areas may be limited or eliminated in the future due to sea level rise and increased storm events. Begin planning for other options to maintain maximum public access such as through new vertical access ways, trail relocations, rerouting of transportation corridors, bluff top facility enhancements or other alternatives.

2.6.2 Work with California State Parks, local governments and others to plan for the impacts of sea level rise and coastal erosion on state, regional and local parks, public access and recreational facilities.

2.6.3 Ensure that LCPs and coastal development permits include policies to maintain public access given the potential loss of public access and CCT segments from sea level rise and coastal erosion.

In addition, this strategy will support Commission's Strategic Plan efforts to reduce barriers to public access, under Objective 2.3.

I.3.2 Develop guidance to use in LCP planning that supports local governments to identify and reduce barriers to coastal access in their local jurisdictions and to consider the unique coastal access needs of environmental justice communities.

C. *Describe the proposed strategy and how the strategy will lead to and/or implement the program changes selected above. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)*

This strategy will result in policy guidance, new information and a framework for maintaining public access in light of sea level rise, with an additional focus on addressing disproportionate impact of public access losses to socially vulnerable or environmental justice communities and removal of barriers to access.

The strategy will consist of the following elements and steps: 1) analyze public access with a focus on the California Coastal Trail, vulnerable in the present day and in a future with sea level rise; 2) assess the needs for public access for environmental justice or socially vulnerable communities, informed by sea level rise vulnerabilities; 3) leverage work underway to address current, real-time vulnerable public access ways for lessons learned and transferable solutions; 4) coordinate with key partner agencies such as Caltrans, State Coastal Conservancy (Conservancy), and California Department of State Parks and Recreation (State Parks); 5) develop guidance for coastal development permits and/or updates to Access and /or Hazard components of LCPs; and 6) implement guidance with training and outreach.

The strategy will result in one or more guidance documents to inform Commission actions on coastal permitting within the Commission's jurisdiction and support addressing these challenges in LCPs. As a result, subsequent program changes to be achieved under this strategy will be new/updated LCPs to support resilient communities in planning for climate change and sea level rise. A unifying theme throughout will be an emphasis on considering environmental justice in engagement and adaptation outcomes to protect public access for all.

II. Needs and Gaps Addressed

There are several needs addressed by this strategy. First, as sea level rises, sandy beaches as well as rocky shores will be more frequently inundated, flooded, or eroded and thus no longer available for public recreational use. In addition, temporary damages to public access infrastructure (roads, parking, trails, etc.) from storm flooding or erosion as well as permanent submergence due to rising seas will pose growing challenges to California's beach recreation areas. While a frequent response to coastal hazards like flooding and erosion, hard shoreline protection is often not a long-term strategy that preserves beaches and public access to shoreline recreation that is now under threat from climate change and sea level rise.

Under this strategy, staff will carry-out a specific effort to identify areas of the coast where public access is vulnerable to sea level rise, with a particular focus on the California Coastal Trail. Second, climate change and sea level rise hazards will have disproportionate impacts on communities with the least capacity to adapt and may exacerbate existing environmental injustices and cumulative impacts from other environmental hazards. More information is needed on understanding these impacts on public access and recreational opportunities. As such, with an emphasis in addressing place-based disparities in public coastal access, the strategy will seek to develop a baseline of information for customizing adaptation approaches that benefit all Californians and do not increase access barriers among any particular group or demographic.

The Phase II Assessments for Special Area Management Plans, Coastal Hazards, and Public Access identified the need to plan to protect coastal resources like sandy beaches and maintain or improve access to them with sea level rise. Another theme that is consistent in these Assessments is a need to incorporate environmental justice throughout the LCP process, by engaging stakeholders, considering impacts on environmental justice communities, and planning for equitable outcomes from adaptation and in coastal permitting. This strategy seeks to address these needs through permitting and planning guidance on how to support equitable distribution of benefits from protecting public access and beach recreation as sea level rises.

III. Benefits to Coastal Management

This strategy addresses a central challenge of the California Coastal Management Program going forward in a time of rising seas: protect coastal resources, particularly beaches, and maximize public access for all. The Coastal Commission is in a unique role to conduct the analysis and engage with stakeholders and key agency partners to develop policy guidance on planning for equitable coastal access as coastal hazards are projected to intensify with climate change and rising seas. Many of the overarching principles that are carried forward in the strategy, evaluation of adaptation options for various types of hazard contexts and analysis of environmental justice issues will be informative and useful for the 76 local governments developing new policy in the California coastal zone and other coastal states with similar environments.

IV. Likelihood of Success

Discuss the likelihood of attaining the strategy goal and program change (if not part of the strategy goal) during the five-year assessment cycle or at a later date.

There is a high likelihood of success for this strategy based on the demonstrated need, request for assistance on these issues from local governments, the recently adopted EJ policy by the Coastal Commission, and the number of current planning and permitting projects the Commission is currently reviewing that would benefit from the analysis and policy guidance. In addition, the strategy will leverage the work underway to complete a geospatial mapping of the California Coastal Trail, completed in coordination with Caltrans and the Coastal Conservancy, which will facilitate analysis of sea level rise vulnerabilities of the Coastal Trail. Commission staff will continue this coordination and collaboration with these agency partners (and others) under this strategy, which will also contribute to the likelihood of success. Most important, the strategy will support achievement of several Strategic Plan action items and overall Strategic Plan goals.

V. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps that will lead toward or achieve a program change or implement a previously achieved program change.

Strategy Goal: Guidance and informational tools for analysts and planners to maximize coastal access for all in addressing impacts sea level rise and removal of barriers.

Total Years: 5
Total Budget: $560,000 - $580,000

Year(s): 1 (2021) Assessment of needs and vulnerabilities
Description of activities: Assess public access needs, barriers and identify locations where public accessways, the CA Coastal Trail (CCT), or roadways that facilitate access may be limited or eliminated in the future due to sea level rise and increased storm events. Utilize recently completed geospatial mapping of CCT to analyze vulnerabilities with various sea level rise projections. Begin gathering information to understand the impacts of future losses or lack of public access, including identifying impacts on residents of underserved or environmental justice communities in accessing the coast, through engagement with environmental justice stakeholders. Public transportation opportunities to enhance public access will be evaluated in this context. Conduct coordination with key partner agencies, like the State Coastal Conservancy, State Parks, Caltrans and regional transportation agencies, to leverage information on vulnerabilities and conduct the analysis.

Major Milestone(s): Report on access barriers and sea level rise vulnerabilities for public access locations. Outreach and engagement with environmental justice communities. Refined work plan.

Budget: $ 110,000

Year(s): 2 – 3 (2022-2023) Case studies, evaluation and partner coordination, stakeholder engagement

Description of activities: Analyze existing circumstances where public access is being lost or undermined by coastal hazards related to erosion and flooding – review efforts underway for planning and evaluating alternatives/hazard response solutions. Use information and vulnerabilities assessed in Year 1 to inform a staff memo, informational products on recommendations for planning for public access, including potential hot spots for sea level rise impacts and options for planning to maximize public access. The staff memo will also include information on analyzing sea level rise impacts on public access and the existence of potential environmental justice impacts associated with proposed adaptation actions. This could include best practices for local governments to evaluate barriers to coastal access experienced by underserved communities and ways to reduce these barriers and any disparate impacts on vulnerable communities resulting from adaptation programs or projects affecting public access. It will also recommend policy approaches for ensuring equitable distribution of benefits of any new or replacement public accessways and amenities.

In addition, Years 2- 3 will continue the coordination and collaboration between the Coastal Commission and partner agencies such as State Coastal Conservancy, Caltrans, and California State Parks on opportunities, approaches and resources available for maintaining beaches, public accessways, the California Coastal Trail and amenities (e.g. parking, facilities) in light of sea level rise.

Major Milestone(s): Report on case studies, adaptation options, and staff memo
Budget: $ 200,000 – $220,000

Year(s): 4 – (2024) Draft Policy Guidance development; partner coordination and stakeholder engagement ongoing
Description of activities: Relying on the results of the other tasks, develop draft policy guidance for Commission staff and local governments in support of updating LCPs to address sea level rise impacts on public access and addressing public access in coastal development permit review with equity and environmental justice. Include robust community engagement to include environmental justice and equity needs.

Major Milestone(s): Draft planning and regulatory policy guidance
Budget: $125,000

Year 5 – (2025) Final Guidance adoption by Coastal Commission and Implementation
Description of activities: Building off the draft guidance developed in year 4, finalize and present final guidance for Coastal Commission adoption. Post adoption, staff will begin to implement policy guidance by providing training, outreach, and education to Commission staff and local governments in support of updating LCPs to address sea level rise impacts on public access with recognition of unique coastal access needs of environmental justice communities.

Major Milestone(s): Final Guidance adoption, training materials, outreach and education
Budget: $125,000

VII. Fiscal and Technical Needs

A. Fiscal Needs: If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the CMP has made, if any, to secure additional state funds from the legislature and/or from other sources to support this strategy.

At this time, the 309 funding will support carrying out this strategy. If additional funds are needed, Commission will consider available funding resources such as funding from the Greenhouse Gas Reduction fund or other state funding sources dedicated to analyzing and addressing sea level rise impacts.

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out all or part of the proposed strategy, identify these needs. Provide a brief description of what efforts the CMP has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

At this time, the Commission believes it has the necessary technical capacity to carry out this proposed strategy, in partnership with key agency partners and environmental justice and equity groups that have additional knowledge and expertise in the area of coastal public access and the California Coastal Trail.

VIII. Projects of Special Merit (Optional)

If desired, briefly state what projects of special merit the CMP may wish to pursue to augment this strategy. (Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above.) The information in this section will not be used to evaluate or rank projects of special merit and is simply meant to give CMPs the option to provide additional information if they choose. Project descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not provide detailed project descriptions that would be needed for the funding competition.

Commission staff may pursue project of special merit funding to conduct a comprehensive needs assessment of public access needs of environmental justice communities. Initial ideas for such a project may include seeking a third-party entity with academic, research or survey capability to assist the Commission with carrying-out this work.

Strategy 3. Marine Debris Reduction Measures Program

I. Issue Area(s)

The proposed strategy or implementation activities will support the following high-priority enhancement areas *(check all that apply)*:

- ☐ Aquaculture
- ☐ Energy and Government Facility Siting
- ☐ Coastal Hazards
- ☒ Ocean/Great Lakes Resources
- ☐ Special Area Management Planning
- ☐ Cumulative and Secondary Impacts
- ☐ Wetlands
- ☒ Marine Debris
- ☐ Public Access

II. Strategy Description

A. The proposed strategy will lead to, or implement, the following types of program changes *(check all that apply):*

☐ A change to coastal zone boundaries;

☐ New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding;

☒ New or revised local coastal programs and implementing ordinances;

☐ New or revised coastal land acquisition, management, and restoration programs;

New or revised special area management plans (SAMP) or plans for areas of particular concern (APC) including enforceable policies and other necessary implementation mechanisms or criteria and procedures for designating and managing APCs; and,

☒ New or revised guidelines, procedures, and policy documents which are formally adopted by a state or territory and provide specific interpretations of enforceable CZM program policies to applicants, local government, and other agencies that will result in meaningful improvements in coastal resource management.

B. ***Strategy Goal:*** The goal of this program will be to develop guidance and public outreach around the inclusion of plastic pollution and other marine debris reduction measures in coastal development permits, LCPs, and other relevant regulatory processes and documents, pursuant to Strategic Plan Objective 3.5.

Strategic Plan Action 3.5.2 states: Provide guidance for coastal development permits, LCPs, and other relevant documents to incorporate marine debris reduction measures into permits and plans.

This strategy will also support various components of the California Ocean Protection Council's Ocean Litter Strategy (OLS), which the Commission was heavily involved in developing. There are multiple objectives and actions within the OLS that Commission actions to reduce plastic pollution would support, including *Objective 1.1 Prohibit or discourage common ocean litter*

items in public institutions, retail, and food service establishments through government policies or mandates; Objective 3.1 Support the State Water Resources Control Board's Trash Amendments; and Objective 5.2 Educate consumers about the sources of ocean litter to drive behavior change in purchasing. The Commission is specifically identified as a lead in *Action 3.2.1. Establish and improve management of trash, recycling, and compost receptacles in high-use areas.* The Commission is also identified as the lead in *Action 6.2.3. Include aquaculture BMP Plan implementation requirements in coastal development permits, where appropriate.* The proposed program would directly support progress on these actions.

C. *Describe the proposed strategy and how the strategy will lead to and/or implement the program changes selected above. If the strategy will only involve implementation activities, briefly describe the program change that has already been adopted, and how the proposed activities will further that program change. (Note that implementation strategies are not to exceed two years.)*

As understanding of the scope of plastic pollution along the California coast and in the Pacific Ocean grows, the need to enact pollution reduction measures grows alongside. Marine debris can adversely impact coastal resources, including Environmentally Sensitive Habitat Areas as defined by the Coastal Act, Marine Protected Areas, and species both endangered and healthy, and diminish the value of coastal economies. To carry-out this strategy, Commission staff will create an internal team of staff assembled as a Plastic Pollution Task Force, made up of staff with expertise in permitting, planning, enforcement and water quality, to investigate, develop, and implement the proposed guidance for planners and permit analysts, including recommendations for ways to encourage source reduction of plastic pollution at the planning or project level. The strategy to develop guidance, associated training, and public information will help institutionalize plastic pollution reduction measures within the Coastal Commission's planning and regulatory processes.

The initial investigatory phase will consist of the following tasks: 1) review areas where the Commission is already implementing measures in regulating development to control plastic pollution, 2) research activities and sectors within the Commission's jurisdiction that potentially create plastic pollution, and 3) analyze the strengths and limitations of the Coastal Act in addressing plastic pollution within coastal development permits, LCPs, other relevant documents, and enforcement actions.

The development phase of the project will consist of the following tasks: 1) using a data driven approach , develop methods and criteria for evaluating the potential for plastic pollution impacts from proposed development or other coastal-dependent uses; 2) identify appropriate interventions within the coastal development permit and planning processes in which plastic pollution reductions can be realized; 3) develop best management guidance for plastic pollution reductions to be used in evaluating coastal development permits, LCPs, and enforcement actions; and 4) Coastal Commission review and adoption of the guidance.

The guidance will be rolled out in an implementation phase, consisting of: 1) staff training on the new guidance including how to incorporate it into regulatory analyses and processes; 2) the guidance and associated materials will serve as ongoing resources for staff in reviewing projects and plans; and 3) staff will provide public information and resources around the programmatic change and measures to address plastic pollution.

Concurrent with this work, Commission staff will continue to collaborate with other state agencies, including the Ocean Protection Council, CalRecycle, the State Water Resources Control Board, and others to support continued work across all areas of the plastic pollution challenge through the OPC's Plastic Pollution Steering Committee. This collaboration will provide a forum by which the Commission can share progress and solicit feedback and expertise from other state agencies about the development of the policy guidance under Strategy 3.

III. Needs and Gaps Addressed

Identify what priority needs and gaps the strategy addresses and explain why the proposed program change or implementation activities are the most appropriate means to address the priority needs and gaps. This discussion should reference the key findings of the assessment and explain how the strategy addresses those findings.

Currently, plastic pollution and other marine debris mitigation efforts are addressed on an ad hoc basis within the Commission's permitting and enforcement work. There is a lack of consistency in how the issue is handled across regulatory actions, and a lack of knowledge as to how best to incorporate these measures. Because the field of marine debris mitigation techniques is rapidly evolving, it is unreasonable to expect each analyst to have the detailed knowledge needed to design mitigation measures. Given that addressing marine debris was identified as a priority issue in the Commission's latest strategic plan and 309A Assessment, there is a critical need to formalize the methods in which plastic pollution will be addressed by permit and enforcement analysts and to provide detailed guidance, training, and ongoing adaptation as new mitigation measures become available.

IV. Benefits to Coastal Management

Discuss the anticipated effect of the strategy, including the scope and value of the strategy, in advancing improvements in the CMP and coastal management, in general.

This strategy will help to identify ways to more fully protect the state's lands and coastal resources as well and the public's safe and healthy access to those lands by reducing trash and debris in the marine environment. The guidance and training will result in greater consistency in how this issue is handled across regulatory actions and improve marine debris reduction outcomes overall. It will also provide guidance and leadership for local governments to follow as they implement LCPs and aim to minimize plastic pollution to better adhere to trash amendments in MS4 storm water permits mandating zero trash discharge to receiving water bodies as discussed in the Marine Debris Phase I, II Assessments.

V. Likelihood of Success

Discuss the likelihood of attaining the strategy goal and program change (if not part of the strategy goal) during the five-year assessment cycle or at a later date. Address the nature and degree of support for pursuing the strategy and the proposed program change, as well as the specific actions the state or territory will undertake to maintain or build future support for achieving and implementing the program change, including education and outreach activities.

There is a high likelihood of success for completing this strategy and the program change because of the Commission staff expertise, agency commitment and state-level requirements for trash reductions. To expertise, this strategy will be carried out under the leadership of staff in the Commission's Public Education (PE) Program, which has expertise in plastic pollution reduction measures from leading the development of both the state and multi-state marine debris reduction strategy efforts over the past 15 years, with the support of the Commission's Water Quality Unit and regulatory staff. The Commission's PE staff also has expertise in this area through leading California's Coastal Cleanup Day efforts for 36 years. In addition to staff expertise, there is strong institutional support for prioritizing marine debris reduction actions within the Commission's executive leadership and the Commission decision-making body.

Further, the recently adopted requirements placed on local governments by the State Water Quality Control Board's Trash Amendments mandate zero discharge of trash into receiving water bodies within the next decade. These requirements involve significant new measures and investment by local government to achieve the target reductions. With the completion of the new guidance and staff training under this strategy, the Coastal Commission staff can better support local governments and the state as a whole in reaching the trash amendment requirements and OLS goals. In sum, given the support for these pollution reduction measures at both the state and local level, the strategy is highly likely to be successful.

The Commission will maintain and build support for this program change through ongoing education and outreach activities including public education on current marine debris research and mitigation measures, media articles, social media posts, and website information.

VI. Strategy Work Plan

Using the template below, provide a general work plan that includes the major steps that will lead toward or achieve a program change or implement a previously achieved program change somewhat over the course of the five-year strategy due to unforeseen circumstances. *The same holds true for the annual budget estimates. Further detailing and adjustment of annual activities, milestones, and budgets will be determined through the annual cooperative agreement negotiation process.*

Strategy Goal: Develop guidance and public outreach around the inclusion of plastic pollution and other marine debris reduction measures in coastal development permits, LCPs, and other relevant regulatory processes and documents
Total Years: 5 years

Total Budget: $375,000 - $400,000

Year(s): Year 1
Description of activities: Strategy leads (Commission Public Education staff) will assemble the Plastic Pollution Task Force within the Commission's existing staff with interest and expertise in water quality, plastic pollution reduction measures, and the regulatory, planning and enforcement aspects of the Coastal Act as described above. The task force will examine the coastal permitting process, as well as the sectors and activities that could generate plastic pollution, to better understand intervention points at which pollution prevention measures can be included. The task force will review the areas where the Commission has included plastic pollution reduction measures in past regulatory actions and research the variety of measures that can be taken to reduce plastic pollution. In addition, the task force will identify any gaps or needs within the Coastal Act authority that may need to be addressed in order to better incorporate plastic pollution reduction measures into the permitting process.

Major Milestone(s): Research and foundation for development of guidance documents for use in reducing marine debris through regulatory actions; methods and criteria for evaluating plastic pollution impacts from proposed development or other coastal-dependent uses.

Year(s): Year 2
Description of activities: The task force will work with the Commission's Water Quality Unit as well at the State Water Resources Control Board to incorporate the new trash amendments in MS4 storm water permits into planning, permitting, and enforcement efforts. Building on the work of year one, continue development of the guidance including a series of best management practices to be used by all permit, planning, and enforcement analysts and including ways to address source reduction of plastic pollution within the planning process or project implementation. Staff will also continue to assess whether there is the need for new legislation related to the Commission's ability to implement marine debris reduction measures through regulatory actions.

Major Milestone(s): Summary of appropriate interventions within the coastal development permit and planning processes in which plastic pollution reductions can be realized; Elements of the draft guidance and/or guidance documents that will include best management practices for reduction of plastic pollution and other marine debris within commission regulatory actions.

Year(s): Year 3
Description of activities: The task force will continue to develop guidance documents in collaboration with the Commission's Water Quality Unit. By the end of Year 3, the Commission will hold a public hearing and formally adopt the guidance.

Major Milestone(s): Outcomes: 1) Guidance document including but not limited to: a) Best Management Practices for plastic pollution and other marine debris reductions for use in permitting and enforcement processes; b) Sample permit condition language and findings to support Coastal Act basis for plastic pollution reduction options; and c) Local Coastal Program

policy guidance for addressing plastic pollution and other marine debris reductions. 2) Commission adoption of guidance

Years 1 – 3 Budget: $225,000 - $250,000

Year(s): 4-5
Description of activities: After completion of the guidance, staff will consider issues or gaps within the Coastal Act or coastal management program that have been identified that may need to be addressed by legislation and subsequent updates to the Commission's enforceable policies. Staff will develop a training protocol for use with all regulatory and enforcement staff on the plastic pollution reduction guidance and will begin training staff on the best management practices to be incorporated into permits, plans, and enforcement actions. Staff will develop public outreach documents and materials to publicize the guidance and new actions in which the guidance has been used.

Major Milestone(s): (1) Legislative action as needed; (2) Staff training developed; (3) Staff trained in the use of new plastic pollution reduction measures in their work; and (4) Public documents and other outreach materials made available describing the new measures and Commission actions that have included them.

Budget: $100,000 - $150,000

VII. Fiscal and Technical Needs

A. Fiscal Needs: *If 309 funding is not sufficient to carry out the proposed strategy, identify additional funding needs. Provide a brief description of what efforts the CMP has made, if any, to secure additional state funds from the legislature and/or from other sources to support this strategy.*

The Commission will rely on 309 enhancement program funding as the primary source for this strategy but will contribute additional staff and management time from the agency's state budget.

B. Technical Needs: *If the state does not possess the technical knowledge, skills, or equipment to carry out all or part of the proposed strategy, identify these needs. Provide a brief description of what efforts the CMP has made, if any, to obtain the trained personnel or equipment needed (for example, through agreements with other state agencies).*

Depending on the state of agency staffing in both the Public Education and Water Quality Units, the strategy may require additional technical staff or resources. If needed, the Commission may pursue those resources through other state agency partners, like the Ocean Protection Council and State Water Board. The Commission has interagency agreement with the State Water Board that would facilitate coordination and potential assistance with technical knowledge or skills that may be needed.

VIII. Projects of Special Merit (Optional)

If desired, briefly state what projects of special merit the CMP may wish to pursue to augment this strategy. (Any activities that are necessary to achieve the program change or that the state intends to support with baseline funding should be included in the strategy above.) The information in this section will not be used to evaluate or rank projects of special merit and is simply meant to give CMPs the option to provide additional information if they choose. Project descriptions should be kept very brief (e.g., undertake benthic mapping to provide additional data for ocean management planning). Do not provide detailed project descriptions that would be needed for the funding competition.

At this time, the Commission does not anticipate submitting projects of special merit for the Marine Debris Reduction Measures strategy.

5-Year Budget Summary by Strategy

The following budget table summarizes the anticipated Section 309 expenses by strategy for each year.

Table 1. Five-Year Budget Estimate by Strategy

Strategy Title	Year 1	Year 2	Year 3	Year 4	Year 5	Total Funding
Resilience for communities and coastal resources	$200,000	$200,000	$200,000	$186,000	$186,000	$972,000
Public access for all with sea level rise	$110,000	$110,000	$110,000	$125,000	$125,000	$580,000
Marine Debris Reduction Measures	$76,000	$76,000	$76,000	$75,000	$75,000	$378,000
Total Projected Funding	$386,000	$386,000	$386,000	$386,000	$386,000	$1,930,000

Summary of Stakeholder and Public Comment

Stakeholder Input

Public review is a key piece of developing the Assessment and Strategy and allows the public to see the results of the Commission's program enhancement efforts. As noted above, Commission staff used the public input received during the update to the Commission's Strategic Plan, including initial input on the development phase and formal written comments on the public review draft of the plan, to inform development of the Assessment and Strategy.

The Commission received 68 written comment letters or emails on the Strategic Plan from state and federal agencies (4), local governments and or elected officials (15), non-governmental organizations (9) and other stakeholder groups, such as community and neighborhood groups, property owners, and members of the public (40). The comments provided input to Commission staff on high priority topics and issues. A summary of these comments by enhancement area includes:

- Public Access (aligns with Public Access Enhancement area). Comments included the need to better address coastal access for overburdened and historically disadvantaged communities and to assess the disproportionate burden on disadvantaged communities with regard to public access. There were also comments expressing concern over the impacts of high visitation and impacts to "special communities," community character and coastal resources, expressed primarily from coastal communities.

- Coastal Resources (encompasses Wetlands, Cumulative and Secondary Impacts, Aquaculture, Marine Debris). Comments supported efforts to address plastic pollution and marine debris; similar to above, comments expressed concern over damage to coastal resources with high visitation in unique coastal communities.

- Climate Change and Sea Level Rise (aligns with Coastal Hazards Enhancement area) Regarding the goal of supporting resilient coastal communities, commenters expressed support for addressing sea level rise, some requested emphasizing the urgency of addressing sea level rise and other climate impacts. Commenters also wanted additional recognition of flexibility needed to address local circumstances/constraints.

- Planning and Permitting (aligns with Special Area Management Planning Enhancement area). Comments focused on additional improvements for timely and more efficient processing of LCPs and CDPs. Comments also requested actions be more explicit around Commission hearing process and making information gathering/analysis more transparent. Comments also requested additional specificity around how environmental justice issues would be considered in regulatory review and requested additional actions to improve opportunities for community engagement. Affordable housing concerns were brought up as well.

Public Comment on Draft 309 Assessment and Strategy

The Commission staff provided a 30-day public comment period on the Draft Section 309 Assessment and Strategy for 2021 - 2025 concurrent with review by NOAA starting in December 21, 2020. Staff also presented the Draft 309 Assessment and Strategy to the Commission at the January 13, 2021, public hearing. The Commission received nine comment letters by January

20, 2021, and two oral comments from the public at the January 13th public hearing. Appendix A contains the comment letters and responses below address the issues raised.

Response to Public Comments Received

The Commission appreciates all members of the public and interested parties that reviewed and provided feedback on the Commission's Draft 309 Assessment and Strategy. Generally, most comments were supportive of the Commission's Draft Section 309 Assessment and Strategy for 2021 – 2025. Issues that were raised repeatedly included the importance of fostering public engagement, protecting coastal resources, managing public access, and reducing marine debris.

A number of revisions were made to the Strategy portion of the document based of feedback from the public and in response to comments from NOAA's Office for Coastal Management to provide clarity and additional specificity or information. Another more significant change was the removal of the anticipated regulatory change in process as a "program change" because this work is not related to a prior strategy in Strategy 1. Instead, the first Strategy 1 component now states that staff will evaluate other Coastal Commission regulations to determine if updates are needed to better facilitate or accelerate sea level rise planning and implementation of sea level rise adaptation projects and reduce hazards. Staff also added descriptions of stakeholder feedback to the Enhancement Area Prioritization explanations in the Phase I Assessments and further specified the partners and resources consulted to develop management priorities.

Table 2 below provides the responses of Commission staff to the nine comment letters received during the public comment period. The table notes where public comments resulted in changes that are reflected in the final document. Note that the oral comments received at the public hearing on January 13, 2021 were also detailed in Comment Letter #7 so these comments are not specified twice.

Table 2. Responses to comments on Draft 309 Assessment and Strategy for 2021-2025

#	Commenter	General Issue	Response
1	April Moulton	Supports OHV use	The 309 Assessment and Strategy is not intended to address all of the Commission's coastal management priorities. Comments on matters outside the scope of the 309 Assessment and Strategy will be shared with the relevant District or program staff.
2	Eric Ryder/ Theresa Foland	Supports accessory dwelling units (ADUs) changes to local LCP	Changes to the ADU regulations in individual jurisdictions are not the focus of the 309 Assessment and Strategy. However, a management priority in the Special Area Management Planning enhancement area is to support LCP planning through technical assistance that provides guidance on integrating climate change mitigation, smart growth, and affordable housing and are broadly addressed in Strategy 1.
3	Ingrid Mueller	Prevent cumulative negative community effects/preserve character and history of Venice	The 309 Assessment and Strategy prioritizes community engagement in Strategy development. Strategy 1 will develop draft policy guidance to address environmental justice and equity in sea level rise planning with robust community engagement. A unifying theme throughout Strategy 2 will be an emphasis on considering environmental justice in engagement and adaptation outcomes to protect public access for all. The Commission welcomes continued participation in informing these efforts.
4	John T. Heyl	Need to better manage public access at Point Lobos State Park and Big Sur	Maximizing public access and recreation to and along the coast is a core principle and fundamental to the implementation of the Coastal Act and California's coastal management program. Likewise, protection of coastal resources is a core mandate for the Coastal Commission. Strategies 1 and 2 of this 309 Assessment and Strategy are mostly focused on planning for coastal hazards that include sea level rise. Staff welcomes participation of stakeholders as a part of community engagement in Strategy 1 and 2 aimed at developing guidance and informational resources for planners at the Commission and in local government to support innovative ways to protect coastal resources and maximize public access.

#	Commenter	General Issue	Response
5	Betha Everett	Requests support for short term rentals at Niguel Beach Terrace	Short term rentals (STRs) are a potential part of providing public access and affordable accommodations for visitors to the coast. To the extent that STRs can serve to provide additional affordable accommodations, they might broadly be addressed in Strategy 2, which focuses on sea level rise adaptation to protect vulnerable public access. Addressing Niguel Beach Terrace specifically is outside the scope of the Strategy, but local governments could use the technical assistance that results from this work to support amendments to their Local Coastal Programs.
6	Fred Ross	Requests for designation of the Strands and adjacent Niguel Beach Terrace developments in Dana Point to protect public access	Please see comment above. Also, staff welcomes participation of stakeholders as a part of community engagement in Strategy 2 aimed at developing guidance and informational resources for planners at the Commission and in local government to ensure the public continued access in light of sea level rise and to reduce barriers to public access in support of the Commission's goal to maximize coastal access for all in the agency's 2021 – 2025 Strategic Plan.
7	Stefanie Sekich-Quinn, Jennifer Savage, Emily Parker, Miho Ligare (Heal the Bay & Surfrider Foundation)	<u>Sea Level Rise Adaptation:</u> *Disallow hard armoring in emergency permits and rely on softer solutions such as geotextile bags, nature-based solutions *Assess number of lapsed emergency permits and their impacts *Require more strict conditions in permits such as removing armoring projects by a date certain *Require short term and long term planning that utilizes adaptation	<u>Sea Level Rise Adaptation:</u> Commission staff agree with commenters that nature-based adaptation approaches should be promoted for addressing coastal hazards and sea level rise. The intent of Strategy 1 is to promote nature-based adaptation approaches such that more advance planning will be done to reduce the need for emergency permits, especially where sea level rise impacts can be anticipated. The first part of Strategy 1 is to review regulations for advancing sea level rise adaptation which could include review of issuance of emergency permits. Addressing condition compliance and enforcement is beyond the scope of what can be done in Strategy 1 with the resources that are available for this 5-year strategy effort. Also note that the proposed guidance on phased planning will address ways that can integrate short- and long-term adaptation projects that rely on nature-based approaches and consideration of relocation or realignment to protect coastal resources. Also note, an analysis of the extent and impacts of hard shoreline armoring is provided in the Phase I Cumulative Impacts Assessment (pages 52 – 53).

#	Commenter	General Issue	Response
		measures such as natural erosion control measures and managed retreat <u>Marine Debris:</u> *Support convening a Plastic Pollution Task Force to identify the best ways to incorporate plastic pollution reduction measures into permitting and identify enforcement opportunities *Recommend that the Task Force also identify source reduction solutions, such as quantitative source reduction targets and extended producer responsibility schemes as meaningful interventions that the Coastal Commission can implement	<u>Marine Debris:</u> Commission staff agree that a focus on the life cycle of marine debris is important. Staff clarified in Strategy 3 that the policy guidance developed will integrate source reduction at a planning or project/permit-review level where relevant. Staff also noted that the Commission will continue to collaborate with other state agencies, including the Ocean Protection Council, CalRecycle, the State Water Resources Control Board, and others in development of the policy guidance. Efforts related to Extended Producer can best be addressed the state's Plastic Pollution Steering Committee. This work covers many areas of addressing plastic pollution that are not necessarily within the Commission's authority, such as the development and implementation of Extended Producer Responsibility for plastic packaging, regulation of toxic chemicals used in the production of plastic, and the development of standards for microplastics in drinking water.
8	Carla Farley (Smart Coast California)	Requests an increase in funding of Strategy 1 to support more public engagement with guidance	Commission staff agrees sea level rise is a complex issue that requires an in-depth understanding of climate change and potential impacts on coastal communities. The Strategy 1 workplan proposes outreach and engagement with interested parties and through the Coastal Commission, League of Cities and CSAC framework to develop the guidance described in the strategy. Finalizing policy guidance on management options will entail public and stakeholder engagement and coordination with partner agencies and local government

#	Commenter	General Issue	Response
			working groups. Staff appreciates the suggestion for shared materials prior to engagement events such as workshops and made changes reflecting this in the Strategy 1 workplan. Planned funding distribution for the three Strategies reflects projected needs at this time. The Commission also plans to work with other partners to conduct broader outreach on sea level rise and other relevant adaptation topics outside the direct scope of Strategy 1.
9	David Kossack (San Andreas Land Conservancy)	Assessment--ESHA/wetland trends are misleading Strategies--Suggests public access policy of zero access to protect wetlands and other ESHA; Requests an audit of cumulative impacts from actions such as emergency permits and definition of when development of the coast is complete	Commission staff agree that remote sensing trends are not reported on a scale that is able to discern the gains or losses to ESHA and wetland habitats resulting from smaller projects. The Wetlands Phase I Assessment notes this issue and reports on Coastal Commission permit tracking of wetland acreages which are more accurate at a project level. These changes are not extensive enough to detail a statewide tracking of wetland acreage change, hence the use of remote sensing for broad trends. Coastal Commission staff are focused on local and regional scale projects in the coastal zone, and can report on significant gains or losses where Commission permitting is involved in project implementation (See CDMS table in Wetlands Phase I Assessment). Also, the Wetlands Phase I Assessment points out some larger projects that are in progress and expected to result in significant wetland acreage gain at a local scale. Addressing threats to coastal resources due to climate change, habitat fragmentation, and cumulative impacts of development is an important element of the Coastal Hazards, SAMP, and Public Access enhancement area management priorities that culminated in Strategy 1. Strategy 1 has a focus on protecting or enhancing habitat areas to support resilience to growing coastal hazards. Maximizing public access and recreation to and along the coast is fundamental to California's coastal management program, so balancing coastal resource protection with public access will need to be approached on a case by case basis based on local context and consistent with the Coastal Act. Please see response to Comment #7 for more on emergency permits and the scope of the 309 Strategies.

Appendix A – Public Comment Letters

Comment for: Coastal Commission's Draft Section 309 Assessment and Strategy

AM

April Moulton [redacted]

Thu 12/24/2020 8:59 PM

To: 309Comments2021@Coastal

Good afternoon and Merry Christmas,

I am a resident of Oceano and want to protect the State Park and it's OHV and Camping Use. I used to camp at this state beach 20 years ago. We loved vacationing here so much that we bought a home in the neighborhood closest to the southern entrance to the Dunes. We did this for the sole purpose to make it easier to recreate in our vehicles with family and friends in the sand.

I understand California wants to eliminate off road vehicles, gas powered vehicles and designate a large amount of open land to be protected in years to come.

This state park has already given so much of the park to be closed off to other uses (mostly protecting wildlife and plantlife). This is an OHV State Park. That was it's intended use since the 1980's. We have already given more than 50% of the park to be closed off to vehicles and camping. PLEASE help us protect what we still have.

California has over 800 miles of coastline. We are asking to keep just a few miles of that.

Lastly, if the park is closed off to vehicles, the majority of the park would never be seen by people. Anything past the beachfront, hard packed sand is a difficult terrain that doesn't lend to bicycle riding, running or hiking. That means it will simply become a vast desolate section of the park that we used to enjoy.

Thank you for your time!

Stay safe, stay healthy and stay in touch.

Sincerely,

April Moulton ***(formerly Smith; YES! I got married during COVID)***
Risk Management Broker Lic #01736191
Call/Text: 805-391-0222
Search for homes or read reviews: **www.AprilC21Home.com**
Mission Statement: **To provide our clients the best possible Real Estate experience by providing them with the best trained agents in the industry.**

Letter #2

Re: Reminder - Public Notice of Coastal Commission's Draft Section 309 Assessment and Strategy

eryder [redacted]

Fri 1/15/2021 10:38 PM

To: 309Comments2021@Coastal <309Comments2021@coastal.ca.gov>

3 attachments (714 KB)

PRESENTATION.pdf; 20201110_r_CZ ADU Update CCC Transmittal (4).pdf; 20201110_o_CZ ADU PLN 2020-00144 (3).pdf;

Hello -

Residents of Half Moon Bay living in the San Mateo County Unincorporated area / LCP Zone have been waiting for over a year for the changes to the ADU regulations that the Governor handed down in 2019 to trickle down to us. The San Mateo County Supervisors / Planning Department finally passed along their Recommendations for the Coastal Commission / LCP to certify these changes two months ago. Attached are the meeting minutes, along with supporting material.

We have been waiting to build out an Attached ADU for my in-laws to move into, to help care for them. My Mother In-Law, in particular, has one lung and is now on oxygen and in a nursing home. The fear of COVID is extremely high and causing us all a lot of stress. She is 85. We need to bring her home, but we have no space for both of them, or even just her. To say getting these recommendations certified ASAP is a matter of life and death is probably not too far from reality here.

Please put this on the next meetings calendar and/or let us know if this has already been signed off, as I believe there may not need to be a meeting for this. From the looks of it, the next CC meeting for our area isn't until April. It will be extremely stressful to wait yet another 3 months before we can even START the permitting process.

Thank you for your time and consideration!!

Eric Ryder / Theresa Foland
HMB

Letter #3

Primary and Cumulative Negative Environmental Justice Impacts

Ingrid Mueller [redacted]

Fri 1/15/2021 10:54 PM

To: 309Comments2021@Coastal <309Comments2021@coastal.ca.gov>
Cc: Save Venice <savevenice.me@gmail.com>

Dear Commissioners,
Your eyes and ears are wide open, no doubt, as we all want to help preserve our uber-beloved California Coast.

As a 32-year tenant at the now Landmarked Lincoln Place Mid-Century Apartments in East Venice, you can imagine our grassroots 20-year fight to Preserve it as a State Historic Resource..and it's standing still.

Our Oakwood area, however, has been uber-gentrified over a couple of decades, as the Mello Act was tossed between our City and CCC, thus never applied.
Thousands of renting neighbors were displaced, are homeless, cannot re-unite, are disabled, got lost in addictions =
Primary after effects of overdevelopment, poker games for the rich, that greed addiction.

Our Venice Neighborhood Council has strategically knitted into its Board and some Committees those very designing, building, and uber-developing persons and Investment LLCs that are evaluating Venice for very wrong reasons, indeed.

Generations of black and brown and activist residents are insisting on being heard.
The black community built and fully owned their beloved 110-year old First Baptist Church - alas, it was sold behind their backs by a new 'Charlatan' pastor by fraudulent means.
Instead, Pastor E.L.Holmes beautifully served the Oakwood Congregation since 1945 and helped uplift Black History for today's strong, remaining population.

To preserve and respect history, good and bad, strengthens us all.
May you be able to help Venice keep its unique culture, character, and history.

No more cumulative negative community effects!

Yours Sincerely, indeed.
Ingrid Mueller
1050 Doreen Place#3
Venice, CA 90291

cc: savevenice.me

Letter #4

Niguel Beach Terrace, Dana Point CA92629

Betha Everett [redacted]

Sun 1/17/2021 1:01 AM

To: 309Comments2021@Coastal <309Comments2021@coastal.ca.gov>

Attention : Coastal Commission Members , "Headlands in Coastal Zone"

There are 368 condos located in the complex called "Niguel Beach Terrace" located in the Headlands Coastal Zone in Dana Point CA 92629.

These condos are 70 to 75% rentals, located in Headlands Coastal Zone, located on the ocean side of Pacific Coast Highway on Selva Road, Dana Point.

This complex, Niguel Beach Terrace, is only a few steps to beach access, directly across street and down steps to Salt Creek Beach / Strand Beach
located in Headlands Coastal Zone.

For 16 years from "2000 to 2016" 100 owners were allowed to do weekly or short term rentals in this complex but it is not allowed now. Since we are in the coastal zone, it seems we should have that privilege again.

If only one member of the Coastal Commission would come and investigate this, that would answer many questions that so many owners have concerning this issue.

We wonder what is the advantage is for being in the "Headlands Coastal Zone" without allowing this privilege?

When we did it, so many guests traveled here to enjoy our beaches constantly? We hope someone can check our
Headlands Coastal Zone and our condo location and help us bring back this privilege.

We want to only do what the city and the Coastal commission approve for this opportunity because we are special being in "Headlands Coastal Zone"

We are only steps away from these two beautiful beaches.
It is just so perfect for this privilege for families especially with children to enjoy our beaches.

At this time we are allowed 30 day rentals, but it is very hard for young families with children (sports and school) to get away for 30 days at one time.

Our guests are also wonderful but all mostly retired now that required for a stay of 30 days.

Thank you for listening and for opportunity to discuss this issue.

Sincerely,
Betha Everett
Sent from my iPhone
Betha Everett

949.310.3703
Danacondo@aol.com

Vrbo.com/6794. Harbour House
Vrbo.com/6796. Cleopatra
Vrbo.com/16037. Ivory Coast
Vrbo.com/892680. Ritz Point-
Retreat

Letter #5

Public Access Thoughts

John T. Heyl [redacted]

Sun 1/17/2021 8:19 PM

To: 309Comments2021@Coastal <309Comments2021@coastal.ca.gov>

I live near Point Lobos State Park and Big Sur. Both areas are impacted by ever-growing throngs of visiting tourists, mostly arriving by automobile.

I'm wondering if the commissioners are considering some form of lottery system for managing the numbers of visitors?

I envision something that discourages the idle drive-by selfie-scoring visitors while encouraging and enhancing pre-planned visits of limited numbers to enhance the visitor experience at the limited access points.

If a daily, weekly, or monthly pass was available and monitored by the Coastal Commission for various sections of the California Coast, as is currently under review in the Big Sur area, could this contribute to better visitor experiences and preservation of quality access to the coastal areas?

Yrs,

John Heyl
Carmel Valley, CA

Letter #6

Commission's Section 309 Draft Assessment and Strategy Document for 2021 – 2025 for Public Review and Comment.

Fred Ross [redacted]

Tue 1/19/2021 9:10 PM

To: 309Comments2021@Coastal <309Comments2021@coastal.ca.gov>; Betha Everett <danacondo@aol.com>; soonertraci@gmail.com <soonertraci@gmail.com>

To whom it may concern

We are writing to ask that you designate the Strands and adjacent Niguel Beach Terrace developments in Dana Point to protect public access.

These developments are within the Coastal Zone.

The city of Dana Point, as well as various HOA organizations, are currently limiting access and prevent affordable short term rentals to enhance access to our wonderful California coasts.

The current regulations forbidding short term rentals is making this a "rich persons" playground and limiting access to regular folks.

Designating these areas as protected areas under the Code will help in local efforts to get the city and HOA's to relax current restrictions.

I am copying key portions of **309 Draft Assessment and Strategy Document for 2021 – 2025**

Quote: " ***recent reports document the impact from the loss of affordable overnight accommodations along the coast and the barriers to access that have been created under existing governing/regulating systems and recreational planning efforts. These studies found that there are inequities in the public's ability to access the coast.*** **"**

the California Legislature and the people of California passed laws and bond acts to help address the loss/lack of affordable and equitable public access opportunities along California's coast. The new laws and bonds also provide policy guidance and funding to improve public access and recreational opportunities to and along the coast for all Californians.

Maximizing public access and recreation to and along the coast is a core principle and fundamental to the implementation of the Coastal Act and California's coastal management program. It is also a high priority and goal of the Commission's updated 2021 – 2025 Strategic Plan. Public access, and the need to protect and maintain it, was one of the primary themes of early public input on the Coastal Commission Strategic Plan update, received through initial public engagement efforts. Stakeholder feedback on the Commission's Strategic Plan requested a priority be placed on protecting public access from effects of climate change and sea level rise, as well as from privatization. Some requested the Commission provide guidelines to local governments to address local beach access and management issues to maintain public accessways without compromising the ecological integrity of the beaches, as well as increasing equitable access for all people as a vital component to addressing social justice for low income residents and communities of color seeking recreational opportunities. Because of this, public access is a high priority for the 309 strategy.

Thank you for your consideration.

on behalf of
Betha Everett
34102 Selva, #362, Dana Point, CA

Heal the Bay

SURFRIDER FOUNDATION

January 20, 2021

To: John Ainsworth, Executive Director, California Coastal Commission
CC: Alison Dettmer, Chief Deputy Director, California Coastal Commission
Michelle Jesperson, Federal Programs Manager, California Coastal Commission
Mary Matella, Environmental Scientist, California Coastal Commission

RE: Draft 309 Assessment and Strategy, Coastal Zone Management Act

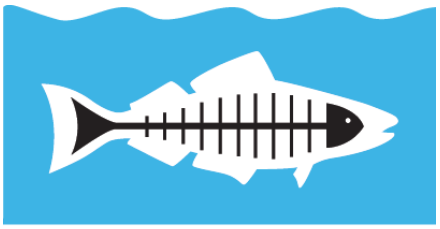
Dear Executive Director Ainsworth,

We, the undersigned organizations, respectfully offer the following comments on the Coastal Commission's draft 309 Assessment and Strategy. The draft Assessment and Strategy highlights important accomplishments on coastal hazards, marine debris and public access. This work includes landmark progress on sea level rise adaptation planning and policy guidance, measurable progress on improving coastal access, as well as the Commission's successful and impactful annual Coastal Cleanup Day events. These advancements, thanks in part to the Coastal Zone Management Act (CZMA) funding, make California not only a national but also an international leader in coastal management.

Surfrider produces an annual report, called the State of the Beach, in which we grade all U.S. coastal states on how they manage coastlines and plan for sea level rise. We use the CZMA 309 form as a basis for our rubric to assign points to each state (see appendix of report to view how we utilize the 309 form). California is the only state that has received an "A" for it's progress in sea level rise planning and policy guidance and coastal development standards. The Coastal Commission has pushed for increasing setbacks to keep infrastructure safe from future coastal erosion and is recommending local communities look at complicated issues like managed retreat, including examining moving vulnerable train tracks.

While the Assessment and Strategy offers a sound proposal to build on recent accomplishments, we offer the following comments to strengthen the 2021-2025 strategy.

Sea Level Rise Adaptation



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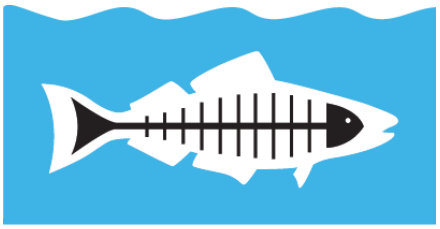
While California and the Coastal Commission are relatively advanced compared to other U.S. states in sea level rise adaptation policy guidance, it remains to be seen whether this strong guidance will translate to better regulatory policies and more coastal protections at the local and state level. For the 2021-2025 309 Strategy, we strongly recommend that the Coastal Commission staff focus on ensuring that the draft Residential Sea Level Rise Guidance be approved unaltered, and remain strong and protective of public resources. The Commission's collective planning guidance must translate to strict policy and permitting outcomes if we are to avoid the worst impacts from sea level rise.

In 2020, Governor Newsom signed two executive orders to help the state mitigate and adapt to the climate crisis with an emphasis on using nature-based solutions to combat climate change impacts. Governor Newsom also issued a pledge to conserve 30 percent of the state's land and waters by 2030. Coastal Commission staff must ensure that applicants cosatal development permits and local government's local coastal programs implement and enforce policies that comply with these mandates as well as their own solid sea level rise guidance.

We noted that the 309 Assessment and Strategy did not include a review of actual coastal armoring statistics for the state. It would be beneficial to know if there has been an increase or decrease in seawalls, including armoring allowed through emergency permits, and in alternative shoreline protection such as living shorelines to track the state's progress. This is particularly relevant for addressing the grossly misused emergency permit system in place which has led to an unjustifiable amount of unpermitted coastal armoring on our coast. Emergency permits are readily issued with minimal analysis and public notice, and are given without question as to what qualifies as an unforeseen emergency.

Applicants, often with little regard for the Coastal Act, will armor shorelines under an emergency permit; unfortunately that armoring is rarely – if ever – removed and a proper coastal development permit allowing for staff evaluation and public input is not sought. In other instances, applicants might take years in drawn out "negotiation" with Coastal Commission staff to seek a follow-up permit. This gaping loophole undermines California's example to the rest of the country.

The ease with which an applicant is issued an emergency armoring permit in California undermines the state's otherwise stringent criteria. We strongly



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recommend that Coastal Commission staff look into methods to discourage emergency shoreline armoring permits, especially given that we can no longer claim erosion and sea level rise as unforeseen events on our coast. Staff should consider and require alternative temporary measures and disallow hard armoring under emergency permitting. This Commission must find a way to correct the haphazard approach to emergency permits and updating the 309 form provides at least one opportunity to earnestly start the process.

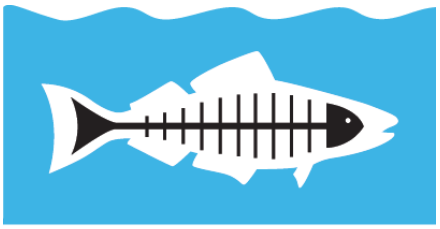
Per Surfrider's policy on armoring and recommendations we urge you to:

- Disallow hard armoring in emergency permits and rely on softer solutions such as geotextile bags (preferably from a natural, non-plastic material), nature-based solutions
- Conduct more a thorough analysis of impacts associated with emergency permitting.
- Assess amount and number of lapsed emergency permits that have resulted in unpermitted armoring.
- Require more strict conditions in the permits such as removing armoring projects by a date certain.
- Require short term and long term planning that utilizes adaptation measures such as using natural erosion control measures (i.e. living shorelines) **and** managed retreat.

Marine Debris

We agree that marine debris, more specifically plastic pollution, should be a high priority for Coastal Commission staff. We are also in agreement that the Coastal Commission should closely track and be involved with addressing the emerging issue of microplastics as described in the draft 309 Assessment and Strategy.

Overall, we are in support of institutionalizing marine debris reduction measures in policies and practices such as adding special conditions in coastal development permits and Local Coastal Programs. However, we would like to see more emphasis be put on plastic pollution source reduction measures and full lifecycle solutions. Plastic is a fossil fuel product, and the entire lifecycle of plastics, from extraction to production to disposable, is harmful to our communities and environment and disproportionately impacts low-income communities and communities of color most often.



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We are in support of convening a Plastic Pollution Task Force to identify the best ways to incorporate plastic pollution reduction measures into the permitting process and identify enforcement opportunities. We recommend that the Task Force also identify source reduction solutions, such as quantitative source reduction targets and extended producer responsibility schemes as meaningful interventions that the Coastal Commission can implement. The guidance document developed based on the Task Force's work will be a helpful resource for staff and given the opportunity, we would be happy to review and provide feedback.

We appreciate Coastal Commission staff for their leadership on these important issues and for the opportunity to comments. We look forward to continued work with staff to implement the Strategy.

Sincerely,

Stefanie Sekich-Quinn
Coastal Preservation Manager
Surfrider Foundation

Jennifer Savage
California Policy Manager
Surfrider Foundation

Emily Parker
Coastal and Marine Scientist
Heal the Bay

Miho Ligare
Plastic Pollution Policy Coordinator
Surfrider Foundation

Smart Coast California

Letter #8

January 20, 2021

California Coastal Commission
John Ainsworth, Executive Director
455 Market Street, Suite 300
San Francisco, Ca 94105

RE: Comments to The Draft 309 Enhancement Grants Assessment and Strategy

Dear Mr. Ainsworth,

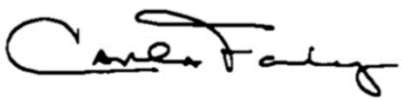
Please accept this letter as our formal response to your Draft 309 Assessment and Strategy for the 2021-2025 Enhancement Cycle. The Section 309 Enhancement Grants Program provides roughly $385,000 per annual grant award issued by NOAA to the Commission, to support staff efforts to make program improvements to the Commission's coastal management program.

The CCC Executive Director's report dated December 18, 2020 to the California Coastal Commission regarding the Draft 2021-2025 309 Assessment and Strategy addresses three major Strategies, the first being "Resilience for Communities and Coastal Resources". We would like to formally request that a more significant portion of the annual funding provided by NOAA be allocated to Strategy #1, Resilience for Communities and Coastal Resources", more specifically to public review efforts. As part of your outreach and educational efforts related to sea level rise adaptation, the Commission has hosted informational briefings on sea level rise vulnerabilities and adaptation issues at monthly Commission hearings, which has been helpful. However, combining public hearings for numerous agenda items does not provide the public with adequate opportunities to understand the issues and provide valuable input, especially for the public review of the Residential Adaptation Policy Guidance (RAPG).

We are formally requesting that public presentations and hearings on the issue of Sea Level Rise should be organized as stand-alone meetings, be widely publicized and noticed, and the materials should be presented in terms that are comprehensible to the general public. We note that often the power point presentations made to the Commission are not made available to the general public before the hearings, which is disadvantageous. The subject of Sea Level Rise is a complex issue that requires an in-depth understanding of Climate Change and the potentially devastating effects to the communities on our California Coast, and we appreciate the efforts made to date by the CCC to provide information to the public.

Thank you for your time and consideration regarding this matter, and please do not hesitate to contact us directly should you require any additional information or materials.

Sincerely,



Carla Farley
2021 President

Letter #9

David S. Kossack, Ph. D.
San Andreas Land Conservancy
P. O. Box 268
Davenport, CA 95017
[redacted]

California Coastal Commission
Executive Division
455 Market Street, Suite 300
San Francisco, CA 94105

Re: California Coastal Commission, Coastal Management Program, Draft 309 Assessment and Strategy, 2021 to 2025 Enhancement Cycle.

Chair Padilla and Commissioners:

Thank you for this opportunity to comment on the California Coastal Commission's Coastal Management Program, Draft 309 Assessment and Strategy, 2021 to 2025 Enhancement Cycle. We have some concerns.

Assessments

ESHA are talked about in terms of "determinations" rather than providing for necessary protection and restoration. ESHA's are ripsawed by Public Access, Sea Level Rise and Coastal Development. ESHA's are only getting smaller while pressure from Public Access, Sea Level Rise and Coastal Development only increases, if not encouraged by the CCC. We feel that after almost 50 years the CCC should have a pretty good grasp on its ESHAs and staff's 'determinations' amount to project fragmentation.

CCC's assessment of **Coastal Wetlands Status and Trends*** Is a little miss leading: The 'gain' in wetlands as presented in Draft 309 is likely within in the standard of error for any of these remote sensing assessments. We think that it is safe to say that in an on the ground assessment of any given coastal wetland will reveal that neither quantity or quality of wetlands has increased, certainly not based upon any functional ecology, in fact their condition(s) are abysmal. Most wetlands, including riparian wetlands, have a contemporary extent that is a shadow of their historic extent. CCC staff wants us to believe that wetlands are increasing, this is not the case.

Public Access is worked as a numbers game with no assessment of the impacts to coastal resources (e.g., ESHA: wetlands, rocky and sandy beach ecologies...), Public Access is overbearing: on MLK day, Jan. 18, 2021,, there were more cars parked on Highway 1 then I have ever seen. Public Access is treated as a sacred cow but these impacts are unmitigable. This is unfortunate but with a finite coastline and an ever increasing user group it will reach a point where you will not like it, if it hasn't reached that point already. These are cumulative impacts.

It is interesting that Wetlands, Cumulative Impacts and Ocean Resources, core Prop 20 priorities only get a "Medium" ranking, while Public Access and Special Area Management Planning get a "High" ranking. Too much of the CCC's and 309's logic is based upon continuing the same activities that have driven impacts to coastal resources including sea level rise, the loss of ESHA and cumulative impacts… to the point of diminishing return.

Strategies:

We find the Strategies presented by Draft 309 are boiler plate, things that are thrown out for just about any plan but provide no benefit to the issues at hand. There are several “Strategies” that would provide a great deal more insight into protection of the Coast.

Zero (0) is a real number. Zero access is a valid Public Access policy. A zero access policy is what is needed to protect wetlands, coastal habitats and other ESHAs. The Prop. 20 that I voted for said: ‘if there is access the public has access’. Prop. 20 said nothing about dissamating coastal resources that don’t have access, public or private, in the name of Public Access. If a No Access Policy were part of CCC’s tool kit it would provide for an equitable Access Policy, no access no matter what the user group, public or private, and it would provide the enforcable protection that the Coast demands.

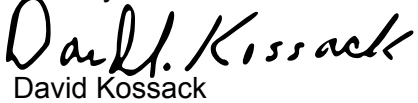
ESHA’s clearly need an *a priori* determination of the protections and restorations that need to be implemented under 30240: ‘(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.’ This includes the need for a bright line to protect against encroachment by development and Public Access.

Every month the Commission’s Executive/Deputy Director's Reports submit dozens of permit waivers, emergency permits, immaterial amendments & extensions that do not get a public hearing. These are Cumulative Impacts. There needs to be an audit of these reports that is preferably done by a third party to account for their growth inducing and cumulative impacts.

CCC needs to recognize that ongoing development is driving climate change. Moving the door mat up a step addresses neither climate change nor sea level rise… The easy coastal protection have past. The Commission, either through Draft 309 or on their own, needs to define the final out-come, (i.e., when is development of the coast completed).

Strategy 1. Building Resilient and Sustainable Communities through planning and permitting: the planner’s full employment strategy.

Thank you



David Kossack
On behalf of
San Andreas Land Conservancy

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H
Statutory Checklist Reference Documents

CDFW CNNDB Map and List



CNDDB QuickView

User Guide | CNDDB Home

--Zoom to a quad--

List CNDDB Species by selecting a tool below and clicking on the map

Species in a Quad

Species in 9 Quads

Species in a County

View CNDDB Quad Data by Species

---Species name---

Clear Highlights

Element_T	Scientific_N	Common_N	Element_C	Federal_St	State_Statu	CDFW_Stat	CA_Rare_P	Quad_Cod
Animals - A	Spea hamn	western sp	AAABF020	None	None	SSC	-	3311882
Animals - B	Aquila chry	golden eag	ABNKC220	None	None	FP | WL	-	3311882
Animals - B	Coccyzus a	western ye	ABNRB020	Threatened	Endangere	-	-	3311882
Animals - B	Falco pereg	American p	ABNKD060	Delisted	Delisted	FP	-	3311882
Animals - B	Setophaga	yellow war	ABPBX030	None	None	SSC	-	3311882
Animals - B	Spizella bre	Brewers sp	ABPBX940	None	None	-	-	3311882
Animals - B	Polioptila c	coastal Cali	ABPBJ0808	Threatened	None	SSC	-	3311882
Animals - B	Athene cur	burrowing	ABNSB100	None	None	SSC	-	3311882
Animals - B	Empidonax	southweste	ABPAE330	Endangere	Endangere	-	-	3311882
Animals - B	Vireo bellii	least Bells	ABPBW011	Endangere	Endangere	-	-	3311882
Animals - In	Rhaphiomi	El Segundo	IIDIP05022	None	None	-	-	3311882
Animals - M	Taxidea tax	American b	AMAJF040	None	None	SSC	-	3311882
Animals - M	Myotis veli	cave myoti	AMACC01C	None	None	SSC	-	3311882
Animals - M	Glyptoston	San Gabrie	IMGASB10	None	None	-	-	3311882
Animals - M	Gonidea ar	western ric	IMBIV1901	None	None	-	-	3311882
Animals - R	Anniella ste	Southern C	ARACC010	None	None	SSC	-	3311882
Animals - R	Phrynosom	coast horn	ARACF121C	None	None	SSC	-	3311882
Plants - Va	Centromad	southern ta	PDAST4R0F	None	None	-	1B.1	3311882
Plants - Va	Phacelia st	Brands star	PDHYD0C5	None	None	-	1B.1	3311882
Plants - Va	Orcuttia ca	California C	PMPOA4G0	Endangere	Endangere	-	1B.1	3311882
Plants - Va	Navarretia	prostrate v	PDPLM0C0	None	None	-	1B.2	3311882

Quad_Nam	Data_Statu	Taxonomic_Sort-esriFieldTypeString
SOUTH GA	Mapped	Animals - Amphibians - Scaphiopodidae - Spea hammondii
SOUTH GA	Unprocesse	Animals - Birds - Accipitridae - Aquila chrysaetos
SOUTH GA	Mapped	Animals - Birds - Cuculidae - Coccyzus americanus occidentalis
SOUTH GA	Unprocesse	Animals - Birds - Falconidae - Falco peregrinus anatum
SOUTH GA	Unprocesse	Animals - Birds - Parulidae - Setophaga petechia
SOUTH GA	Unprocesse	Animals - Birds - Passerellidae - Spizella breweri
SOUTH GA	Unprocesse	Animals - Birds - Polioptilidae - Polioptila californica californica
SOUTH GA	Mapped	Animals - Birds - Strigidae - Athene cunicularia
SOUTH GA	Mapped	Animals - Birds - Tyrannidae - Empidonax traillii extimus
SOUTH GA	Mapped	Animals - Birds - Vireonidae - Vireo bellii pusillus
SOUTH GA	Unprocesse	Animals - Insects - Mydidae - Rhaphiomidas terminatus terminatus
SOUTH GA	Mapped	Animals - Mammals - Mustelidae - Taxidea taxus
SOUTH GA	Unprocesse	Animals - Mammals - Vespertilionidae - Myotis velifer
SOUTH GA	Mapped	Animals - Mollusks - Megomphicidae - Glyptostoma gabrielense
SOUTH GA	Mapped	Animals - Mollusks - Unionidae - Gonidea angulata
SOUTH GA	Mapped	Animals - Reptiles - Anniellidae - Anniella stebbinsi
SOUTH GA	Mapped ar	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
SOUTH GA	Mapped	Plants - Vascular - Asteraceae - Centromadia parryi ssp. australis
SOUTH GA	Mapped	Plants - Vascular - Hydrophyllaceae - Phacelia stellaris
SOUTH GA	Mapped	Plants - Vascular - Poaceae - Orcuttia californica
SOUTH GA	Mapped	Plants - Vascular - Polemoniaceae - Navarretia prostrata

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H
Statutory Checklist Reference Documents

SCAG Data/Map Report for City of South Gate

SCAG
INNOVATING FOR A BETTER TOMORROW

Connect SoCal

The 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy

LOCAL DATA EXCHANGE (LDX) PROCESS

DATA/MAP BOOK

for the City of

SOUTH GATE

DRAFT PLAN RELEASE | NOVEMBER 2023

CONTENTS

INTRODUCTION 1
- What is Connect SoCal 2024? 1
- What is the Local Data Exchange Process? 1
- What is the Regional Data Platform? 2
- What is the Local Information Services Team? 2

PROVIDING INPUT TO SCAG 3
- Timeline 4

LAND USE 5
- General Plan Land Use 10
- Specific Plan Land Use 10
- Zoning 10
- Existing Land Use 10
- Key Entitlements 11

PRIORITY DEVELOPMENT 11
- Neighborhood Mobility Areas 11
- Livable Corridors 12
- Job Centers 12
- Housing Trajectory 13

TRANSPORTATION 15
- High Quality Transit Corridors 15
- Transit Priority Areas and Major Transit Stops 15
- Regional Bikeways 16
- Regional Truck Routes 16

GREEN REGION RESOURCE AREAS (SB 375) 17
- Resilience 17
- Open Space/Habitat 19
- Administrative/Working Lands 23

GEOGRAPHICAL BOUNDARIES 24
- City Boundary and Sphere of Influence 24
- Census Tract Boundary 24
- Transportation Analysis Zone (TAZ) Boundary 24

DRAFT GROWTH FORECAST (SED) 25

APPENDIX 1: SUSTAINABLE COMMUNITIES PROJECT (SCP) CRITERIA

APPENDIX 2: SOCIOECONOMIC ESTIMATES AND PROJECTION BY TAZ

MAPS

INTRODUCTION

Founded in 1965, the Southern California Association of Governments (SCAG) holds a federal designation as a Metropolitan Planning Organization (MPO) and is a state-recognized Regional Transportation Planning Agency and Council of Governments. SCAG's primary role is developing long-range plans for a region encompassing six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities, an area covering more than 38,000 square miles.

Beginning in February 2022, SCAG started an extensive data exchange process with local jurisdictions. The purpose of this process was twofold: to inform SCAG's 2024 Regional Transportation Plan/Sustainable Communities Strategy ("Connect SoCal 2024") and to provide data, tools, and platforms to assist in local plan development. This process was developed in conjunction with SCAG's Regional Data Platform. The data and maps in this book can also be accessed in digital and editable form through the RDP (https://scag.ca.gov/RDP) alongside several additional planning tools.

This bottom-up approach ensures that local jurisdictions are actively involved in the development of SCAG's regional plans and that the data is accurate. By providing tools and data back to local jurisdictions for their own plan updates, the objective of the Local Data Exchange is to help make local and regional plans mutually reinforcing.



What is Connect SoCal 2024?

The Regional Transportation Plan is an important planning document for all major US regions which allows transportation projects to qualify for federal funding and/or federal approval. A principal requirement of the RTP is that the US EPA's Transportation Conformity Regulations are complied with at the regional level. The California Sustainable Communities and Climate Protection Act of 2008, better known as Senate Bill 375, mandates the integration of transportation, land use, and housing planning with the objective of smarter growth. Under SB 375, the California Air Resources Board issues a travel-based greenhouse gas (GHG) emissions reduction target for the region and requires MPOs to develop a Sustainable Communities Strategy that demonstrates target achievement in alignment with the RTP and the Regional Housing Needs Assessment (RHNA).[1] These federal and state standards both require the development of a coordinated regional strategy for transportation and land use in order to ensure that the region's goals are achieved.

What is the Local Data Exchange Process?

In order develop a plan that can meet these requirements, SCAG first prepares a set of GIS maps for local jurisdictions. Several maps are produced by third parties and are curated and provided by SCAG for informational purposes as a consideration in developing local plans. Other maps are draft, prior, or public versions of local data which SCAG is requesting local review for possible inclusion in Connect SoCal 2024. Over the course of 2022, SCAG reached out to all 197 local jurisdictions, provided available resources, and met one-on-one with local jurisdictions to discuss these data and maps in their local context, provide background on the development of Connect SoCal 2024, and provide training in tools available to local jurisdictions. Preliminary data and maps were shared with local jurisdictions through the May 2022 released data/map book and through the Regional Data Platform.

This version of the Data/Map Book reflects the conclusion of the Local Data Exchange process with revisions made by local jurisdictions that provided them to SCAG or were granted an extension by the December 2, 2022 deadline.

1 The RHNA is on an eight-year cycle and no RHNA will be developed alongside Connect SoCal 2024.

INTRODUCTION

What is the Regional Data Platform?

The Regional Data Platform (RDP) (https://scag.ca.gov/RDP) is a collaborative data sharing and planning system designed to facilitate better planning for cities and counties of all levels across the region. The RDP is intended to:

- Provide modern planning tools and best practices oriented around the data and analysis requirements of General Plan updates
- Streamline the process of collecting and integrating data from local jurisdictions to SCAG to enhance regional planning
- Facilitate transparency and collaboration, locally and regionally, to drive more democratic and sustainable planning

The RDP has been designed with three major components—*Accessible Data and Information, Planning and Engagement Tools, and Data Sharing Tools and Workflows*. Tools and resources have been produced in each of these categories with the assistance of ten pilot jurisdictions.

Under *Accessible Data and Information*, the RDP's Regional Hub is a one-stop location for data, tools, reports, and collaboration. SoCal Atlas is a web-based application providing the ability to explore commonly-used data, statistics, and maps across topics (e.g., demographics, employment, housing) and geographies (e.g., county, city, census tracts).

Planning and Engagement Tools include the Housing Element Parcel Tool (HELPR) and Parcel Locator applications for public use. Additionally, local jurisdictions have access to several pieces of off-the-shelf Esri software (e.g., ArcGIS Pro, Urban, Business Analyst) and a local General Plan update site template to easily create a website to facilitate and engage residents during a General Plan update.

The *Data Sharing Tools and Workflows* component has been centered around the Local Data Exchange (LDX) Process, which provides opportunities to local jurisdictions and stakeholders to explore, review, update, and comment on data shared by and with SCAG. Local jurisdiction users with login credentials will have the ability to track submission status and receive direct technical assistance from SCAG.

What is the Local Information Services Team?

Responding to jurisdictions' requests for further technical assistance on the RDP and LDX processes, SCAG launched the Local Information Services Team (LIST) comprised of technical staff able to provide customized one-on-one technical and information services and tool demos. LIST aims to:

1. Link SCAG's available information products (e.g., data, applications, model policies and best practices, topical white papers) to help address local needs,
2. Provide local jurisdiction staff an opportunity to offer feedback on how SCAG can improve its products to facilitate better collaboration, and to
3. Coordinate one-on-one meetings with local jurisdictions during the LDX process.

Requests can be submitted through https://scag.ca.gov/RDP or list@scag.ca.gov.

PROVIDING INPUT TO SCAG

This Data/Map Book and its dynamic online equivalent through the Regional Data Platform is specific to your local jurisdiction and is designed to help local planners better understand the sources, methodologies, and contexts of datasets which will be integrated into SCAG's regional plans.

The layers below are being shared with local jurisdictions in preparation for Connect SoCal 2024. During the LDX process, SCAG sought update and corrections on several layers as indicated below. Additional layers represent regional datasets which local update and corrections were optional. The remaining layers are third-party data which relate to regional objectives and are included for reference while developing Connect SoCal 2024's forecasted regional development pattern. Additional detail is found in the description of each layer that follows. **The current datasets reflect the inputs received during the LDX process.**

CATEGORY	LAYER NAME	REVIEW TYPE
Land Use	General Plan	Update/Corrections
	Zoning	Update/Corrections
	Existing Land Use	Update/Corrections
	Specific Plan Land Use	Update/Corrections
	Key Entitlements	Update/Corrections
Priority Development	Neighborhood Mobility Areas	Optional
	Livable Corridors	Optional
	Job Centers	Optional
	Housing Trajectory	Update/Corrections and site inventory upload
Transportation	High Quality Transit Corridors	Reference Only
	Transit Priority Areas and Major Transit Stops	Reference Only
	Regional Bikeways	Optional
	Regional Truck Routes	Optional
Green Region Resource Areas (SB 375)	Resilience *(Flood areas, coastal inundation, wildfire risk)*	Reference Only
	Open Space/Habitat *(Open space and parks, endangered species and plants, sensitive habitat areas, natural community and habitat conservation plans)*	Reference Only
	Administrative/Working Lands *(Tribal nations, military installations, farmlands)*	Reference Only
Geographical Boundaries	City Boundary and Sphere of Influence	Reference Only
	Census Tract	Reference Only
	TAZ	Reference Only
Growth	Jurisdiction-level projections of households and employment (2019-2050)	Update/Corrections
	TAZ-level projections of households and employment (2019-2050)	Update/Corrections



PROVIDING INPUT TO SCAG

Due to delays in the 2020 Census and a desire to better integrate the evolving COVID-19 pandemic and local jurisdictions' 6th cycle housing element updates in SCAG's forecasting process, preliminary growth forecast data were available later than other layers in May 2022. SCAG staff collected, reviewed, and incorporated the inputs received from email and RDP-LDX portal which provides several options for input:

- Direct editing (no GIS knowledge required)
- Complete file upload
- Complete plan upload
- Comments & feedback

Unique jurisdictional login information was provided under separate cover. LIST members were available throughout the LDX process to provide technical assistance and can be contacted at list@scag.ca.gov.

Timeline

The Local Data Exchange Process involves the following milestones.

EVENT	DATE
Local Data Exchange Soft Launch. Data layers (except growth) available for local review through Data/Map Books and Regional Data Platform (RDP).	February 2022
Subregional outreach and trainings on LDX and RDP. LIST team available for questions and consultation.	Feb – Apr 2022
Local Data Exchange Complete Launch. Data/Map Book and RDP updated to include preliminary growth data.	May 2022
One-on-one meetings with local jurisdictions to review the data package and feedback opportunity.	Beginning May 2022
Deadline for local jurisdictions to provide feedback for possible inclusion in Connect SoCal 2024.	Dec 2, 2022
Regional collaboration on plan development. Continued development of Connect SoCal 2024 strategies with stakeholders, working groups, and the general public.	Early 2023
Draft Connect SoCal 2024 release	Nov 2023
Final Connect SoCal 2024 adoption	Anticipated April 2024

LAND USE

After the adoption of Connect SoCal 2020, SCAG began the 2019 regional land use dataset development process to update parcel-based land use information in preparation for Connect SoCal 2024. From late 2019 to early 2020, SCAG staff obtained the 2019 parcel boundary GIS file and tax roll property information from county assessor's offices and/or county's GIS portals. After a year of data collection, standardization, and clean-up, SCAG staff prepared a set of land use data and maps at the parcel level as follows:

- Adopted General Plan land use with local jurisdiction's general plan designations and with SCAG Land Use Codes
- Adopted Specific Plan land use with SCAG Land Use Codes
- Adopted Zoning codes with local jurisdiction's zoning codes and with SCAG Land Use Codes
- 2019 Existing land use with SCAG Land Use Codes

The Anderson Land Use Classification was used as the standardized SCAG Land Use Code system. For more detailed information on the land use code system, please refer to Table 1: SCAG Land Use Codes Table. Land use datasets were further reviewed by local jurisdictions during the LDX process. In May 2023, SCAG staff completed the data updates based on the data updates and comments received during the LDX process.

Please note that the data shown in some areas may be generalized, because the parcel-level land use dataset does not support multiple uses of designations on a single parcel. Due to this limitation, if site specific data is necessary, users should always reference a local agency's adopted documents or field surveys to determine actual land use designations.



LAND USE

TABLE 1: SCAG Land Use Codes Legend

LEGEND		LAND USE DESCRIPTION
	Single Family Residential	1110 Single Family Residential 1111 High Density Single Family Residential (9 or more DUs/ac) 1112 Medium Density Single Family Residential (3-8 DUs/ac) 1113 Low Density Single Family Residential (2 or less DUs/ac)
	Multi-Family Residential	1120 Multi-Family Residential 1121 Mixed Multi-Family Residential 1122 Duplexes, Triplexes and 2- or 3-Unit Condominiums and Townhouses 1123 Low-Rise Apartments, Condominiums, and Townhouses 1124 Medium-Rise Apartments and Condominiums 1125 High-Rise Apartments and Condominiums
	Mobile Homes and Trailer Parks	1130 Mobile Homes and Trailer Parks 1131 Trailer Parks and Mobile Home Courts, High-Density 1132 Mobile Home Courts and Subdivisions, Low-Density
	Mixed Residential	1140 Mixed Residential 1100 Residential
	Rural Residential	1150 Rural Residential
	General Office	1210 General Office Use 1211 Low- and Medium-Rise Major Office Use 1212 High-Rise Major Office Use 1213 Skyscrapers
	Commercial and Services	1200 Commercial and Services 1220 Retail Stores and Commercial Services 1221 Regional Shopping Center 1222 Retail Centers (Non-Strip With Contiguous Interconnected Off-Street Parking) 1223 Retail Strip Development 1230 Other Commercial 1231 Commercial Storage 1232 Commercial Recreation 1233 Hotels and Motels
	Facilities	1240 Public Facilities 1241 Government Offices 1242 Police and Sheriff Stations 1243 Fire Stations 1244 Major Medical Health Care Facilities 1245 Religious Facilities 1246 Other Public Facilities 1247 Public Parking Facilities 1250 Special Use Facilities 1251 Correctional Facilities 1252 Special Care Facilities 1253 Other Special Use Facilities

TABLE 1: SCAG Land Use Codes Legend (continued)

LEGEND		LAND USE DESCRIPTION
	Education	1260 Educational Institutions 1261 Pre-Schools/Day Care Centers 1262 Elementary Schools 1263 Junior or Intermediate High Schools 1264 Senior High Schools 1265 Colleges and Universities 1266 Trade Schools and Professional Training Facilities
	Military Installations	1270 Military Installations 1271 Base (Built-up Area) 1272 Vacant Area 1273 Air Field 1274 Former Base (Built-up Area) 1275 Former Base Vacant Area 1276 Former Base Air Field
	Industrial	1300 Industrial 1310 Light Industrial 1311 Manufacturing, Assembly, and Industrial Services 1312 Motion Picture and Television Studio Lots 1313 Packing Houses and Grain Elevators 1314 Research and Development 1320 Heavy Industrial 1321 Manufacturing 1322 Petroleum Refining and Processing 1323 Open Storage 1324 Major Metal Processing 1325 Chemical Processing 1330 Extraction 1331 Mineral Extraction - Other Than Oil and Gas 1332 Mineral Extraction - Oil and Gas 1340 Wholesaling and Warehousing

TABLE 1: SCAG Land Use Codes Legend (continued)

LEGEND		LAND USE DESCRIPTION
	Transportation, Communications, and Utilities	1400 Transportation, Communications, and Utilities 1410 Transportation 1411 Airports 1412 Railroads 1413 Freeways and Major Roads 1414 Park-and-Ride Lots 1415 Bus Terminals and Yards 1416 Truck Terminals 1417 Harbor Facilities 1418 Navigation Aids 1420 Communication Facilities 1430 Utility Facilities 1431 Electrical Power Facilities 1432 Solid Waste Disposal Facilities 1433 Liquid Waste Disposal Facilities 1434 Water Storage Facilities 1435 Natural Gas and Petroleum Facilities 1436 Water Transfer Facilities 1437 Improved Flood Waterways and Structures 1438 Mixed Utilities 1440 Maintenance Yards 1441 Bus Yards 1442 Rail Yards 1450 Mixed Transportation 1460 Mixed Transportation and Utility
	Mixed Commercial and Industrial	1500 Mixed Commercial and Industrial
	Mixed Residential and Commercial	1600 Mixed Residential and Commercial 1610 Residential-Oriented Residential/Commercial Mixed Use 1620 Commercial-Oriented Residential/Commercial Mixed Use
	Open Space and Recreation	1800 Open Space and Recreation 1810 Golf Courses 1820 Local Parks and Recreation 1830 Regional Parks and Recreation 1840 Cemeteries 1850 Wildlife Preserves and Sanctuaries 1860 Specimen Gardens and Arboreta 1870 Beach Parks 1880 Other Open Space and Recreation 1890 Off-Street Trails

TABLE 1: SCAG Land Use Codes Legend (continued)

LEGEND		LAND USE DESCRIPTION
	Agriculture	2000 Agriculture 2100 Cropland and Improved Pasture Land 2110 Irrigated Cropland and Improved Pasture Land 2120 Non-Irrigated Cropland and Improved Pasture Land 2200 Orchards and Vineyards 2300 Nurseries 2400 Dairy, Intensive Livestock, and Associated Facilities 2500 Poultry Operations 2600 Other Agriculture 2700 Horse Ranches
	Vacant	3000 Vacant 3100 Vacant Undifferentiated 3200 Abandoned Orchards and Vineyards 3300 Vacant With Limited Improvements 3400 Beaches (Vacant) 1900 Urban Vacant
	Water	4000 Water 4100 Water, Undifferentiated 4200 Harbor Water Facilities 4300 Marina Water Facilities 4400 Water Within a Military Installation 4500 Area of Inundation (High Water)
	Specific Plan	7777 Specific Plan
	Under Construction	1700 Under Construction
	Undevelopable or Protected Land	8888 Undevelopable or Protected Land
	Unknown	9999 Unknown

General Plan Land Use

Beginning in February 2021, SCAG conducted the 2019 general plan land use data update process. In preparation for the update process, SCAG staff conducted an inventory of local general plan land use to review the status of local jurisdiction's general plan land use element updates and to collect recently updated local general plan land use information, based on information available on city/county websites. Throughout the process of collecting local general plan land use information, SCAG staff made every effort to incorporate any local general plan land use maps and designations updated after the development of 2016 regional land use dataset that was used for Connect SoCal 2020. As a part of the update process, SCAG staff migrated 2016 general plan land use information to 2019 parcel polygons and made updates to GIS parcel attributes, symbology layers and general plan correspondence tables. The general plan land use information was coded into GIS format at the parcel level, which includes local land use designations, SCAG land use codes, residential density (dwelling units per acre) and non-residential intensity (floor area ratio). In this Data/Map Book, two different types of general plan land use maps are prepared at the jurisdictional level—one with local designations, consistent with those used in each local jurisdiction and the other with the SCAG's standardized land use codes. **Data reflect revisions made by local jurisdictions during the LDX process in 2022.**

Specific Plan Land Use

Beginning in June 2021, SCAG conducted the 2019 specific plan land use data update process. In preparation for the update process, SCAG staff conducted an inventory of local specific plan land use to collect recently adopted or updated local specific plan land use information, based on information available on city/county websites. Throughout the process of collecting local specific plan documents, SCAG staff made every effort to incorporate any local specific plan land use maps and designations that are newly adopted or updated after the development of 2016 regional land use dataset. As a part of the update process, SCAG staff migrated 2016 specific plan land use information to 2019 parcel polygons and made updates to GIS parcel attributes and specific plan correspondence tables. The specific plan land use information was coded into GIS format at the parcel level, which includes local land use designations, residential density (dwelling units per acre) and non-residential intensity (floor area ratio). In this Data/ Map Book, specific plan land use map is prepared at the jurisdictional level with SCAG's standardized land use codes along with specific plan area boundaries. **Data reflect revisions made by local jurisdictions during the LDX process in 2022.**

Zoning

During the Connect SoCal 2020 Local Input and Envisioning Process, SCAG developed parcel-based zoning dataset, including zoning code—both in local code and SCAG land use code, symbology layers, and zoning standard correspondence tables. The 2016 zoning dataset was then updated based on feedback submitted by local jurisdictions during that process. As a part of the 2019 zoning data update process, SCAG staff migrated 2016 zoning code information to 2019 parcel polygons and prepared two different types of zoning maps at the jurisdictional level—one with local designations, consistent with those used in each local jurisdiction and the other with the SCAG's standardized land use codes. **Data reflect revisions made by local jurisdictions during the LDX process in 2022.**

Existing Land Use

The base year of Connect SoCal 2024 is 2019. To develop the base year 2019 existing land use data, SCAG staff migrated the 2016 existing land use information to 2019 parcel polygons and incorporated any recent land use changes since the year 2016. As a part of the update process, SCAG staff made every effort to identify newly developed parcels that were

previously undeveloped in the 2016 existing land use data by analyzing county assessor's tax roll information, such as use codes and assessed valuations, as well as building footprint information. Additionally, SCAG staff conducted geoprocessing to more accurately reflect the land information from various reference layers, including but not limited to California Protected Areas Database (CPAD), California School Campus Database (CSCD), Farmland Mapping and Monitoring Program (FMMP)'s Important Farmland, U.S. Department of Defense's Military Installations, Ranges, and Training Areas (MIRTA). In this Data/Map Book, the 2019 existing land use map is prepared at the jurisdictional level with SCAG's standardized land use codes. **Data reflect revisions made by local jurisdictions during the LDX process in 2022.**

Key Entitlements

The objective of this data is to improve SCAG's forecast of households and population by ensuring we capture large and/or regionally significant projects. As the land use authorities, local jurisdictions are being asked to review this draft dataset alongside several other land use datasets.

This dataset is not intended to reflect, in and of itself, specific projects which should or should not be included in Connect SoCal 2024. Since Connect SoCal 2024's forecast is not a build-out scenario and entitled projects are often phased over time, not all projects may be reflected and others may be partially reflected. Rather, locally-reviewed Tier2 TAZ growth totals reflect anticipated future growth in Connect SoCal 2024 and this dataset is one of several inputs in assisting to develop these growth totals.

Data reflect revisions made by local jurisdictions during the LDX process in 2022.



PRIORITY DEVELOPMENT

Neighborhood Mobility Areas

Neighborhood Mobility Areas (NMAs) are areas that focus on creating, improving, restoring and enhancing safe and convenient connections to schools, hospitals, shopping, services, places of worship, parks, greenways and other destinations. SCAG uses four empirical measures in its initial identification of NMAs: 1) Intersection density, 2) Low-speed streets, 3) Land use entropy (mixing), and 4) Accessibility to amenities within 1-mile using street network distances. In order to weight these four measures equally, each was converted to a z-score at the TAZ-level. A z-score of zero indicates that a TAZ is at the regional average for that measure – positive scores reflect above-average TAZs and negative scores reflect below average TAZs. A composite score was developed for each TAZ by summarizing the z-scores for all four measures. Based on the results of this process, SCAG took the top 25 percent performing TAZs and identified them as NMAs, to reflect the "top one-fourth" of the region for neighborhood mobility. These preliminary NMAs were then provided to local jurisdictions for review and refinement. We invited local jurisdictions to review the NMA layer by modifying and identifying the TAZs that best reflect (a) the measures and areas important in your community and (b) to link to any local mobility policies/strategies your jurisdiction has. Jurisdictions were asked to describe proposed changes, while keeping the share of each jurisdiction's TAZs identified as NMAs roughly equal (i.e. no more than +/- 10%) so that the regional NMA layer continues to reflect the "top one-fourth" of the region for mobility.

PRIORITY DEVELOPMENT

Livable Corridors

Livable Corridors are areas where local jurisdictions may plan and zone for increased density at nodes along key corridors, and to "redevelop" single-story under-performing retail with well-designed, higher density housing and employment centers. Growth at strategic nodes along key corridors, many of which are within High Quality Transit Corridors (HQTCs), will make transit a more convenient and viable option. The Livable Corridors network is developed utilizing select variables from past regional plans like HQTCs and input from local jurisdictions during LDX. Additionally, this strategy is comprised of two components that will encourage context sensitive density, improve retail performance, combat disinvestment, and improve fiscal outcomes for local communities:

- **Transit Improvements:** Some corridors have been identified as candidates for on-street, dedicated lanes or other enhancements (e.g., Transit Signal Priority). Other corridors have the potential to support features that improve the user experience and bus performance, including enhanced bus shelters, real-time travel information, off-bus ticketing, all-door boarding, and longer distances between stops to increase speeds.
- **Active Transportation Improvements:** Increased investments in Complete Streets within Livable Corridors and intersecting arterials are essential to support safe bicycling, walking, and rolling. Investments may include protected lanes to encourage safe bicycling and lower speed mobility, improved pedestrian access, and bicycle and micromobility parking.

Livable corridors provided for local review were those identified in Connect SoCal 2020.

Based on the criteria above, jurisdictions were asked to describe proposed changes or additions using the line drawing tool.

Job Centers

The Job Centers layer in the Data/Map book was used during Connect SoCal 2020 and identifies areas in the region with significantly higher employment density than surrounding areas. Rather than a traditional downtown core surrounded by a periphery, Southern California has long been known to have a polycentric urban form characterized by multiple centers of activity. 72 job centers were identified in the SCAG region and are places with a greater concentration of employment than areas around them.[2] [3]

This layer was derived from point-level business establishment data from InfoUSA in 2016. Data have been post-processed by SCAG staff or accuracy and job centers are delineated using Tier2 TAZ boundaries. While job data form the basis these centers, places of work also represent the location of activity which may be a destination for other non-work trips (e.g. school, shopping, recreation).

This methodology aims to identify regional peaks of employment density for further plan development and is not intended to capture each local jurisdiction's main commercial areas. Additionally, the use of TAZ boundaries may limit the accuracy of specifc job center boundaries. SCAG requested local insights into the location of regionally-signifcant peaks of existing employment or activities in order to refine Connect SoCal 2024 strategies.

2 For an early methodology delineating job centers in the region, see Giuliano, Genevieve, and K. A. Small. 1991. Subcenters in the Los Angeles region. Regional Science and Urban Economics 21, p. 163-182.

3 These job centers are identified using the methodology described in Kane, K., Hipp, J. R., & Kim, J. H. 2018. Los Angeles employment centers in the twenty-first century. Urban Studies 55:4, p. 844-869

Housing Trajectory

The 6th cycle RHNA process required that each local jurisdiction develop a plan to accommodate its designated housing need across four income categories. Updated housing elements were due to the California Department of Housing and Community Development (HCD) on October 15, 2021 and required the inclusion of a site inventory detailing the location and characteristics of sites which satisfy the RHNA housing need. In some cases, current zoning and general plan designations may not yet be consistent with the housing element's site inventory; however, local jurisdictions have between 1 and 3 years to ensure consistency.

SCAG's 6th cycle RHNA methodology (see https://scag.ca.gov/rhna) allocated the majority of the region's housing need to jurisdictions on the basis of job accessibility and transit accessibility as defined in Connect SoCal 2020. As such, ensuring that local plans to accommodate this need are reflected in Connect SoCal 2024's forecasted regional development pattern is one tool in achieving the region's GHG and conformity targets.

In addition to verifying land use data as described above, SCAG developed an approach to standardize key site inventory criteria in order to help ensure that local jurisdictions' housing element updates are properly reflected. SCAG staff have generated the summary table below based on a review of each local jurisdiction's most recently submitted housing element conducted between December 27, 2021 – January 7, 2022. In addition to reviewing this table for accuracy, local jurisdictions were asked to provide the Excel-based sites inventory table which accompanied the housing element submittal to HCD (see file upload link through https://scag.ca.gov/RDP).

Table 2: Summary Statistics from 6th Cycle Housing Element Updates

NAME	VALUE	DESCRIPTION
Total RHNA Allocation	8282	Total 6th cycle RHNA allocation issued to local jurisdiction in September 2020.
Pipeline/Approved Units	711	Units which are currently in the process of being developed. While the precise description and likely timing differs between housing elements, most include a similar category to indicate housing units which are likely to materialize in the near-term and do not require any, or any significant deviation from existing plans to accommodate.
Nonvacant/infill sites	0	Units included in the housing element which meet HCD's criteria for providing additional evidence of development likelihood owing to an existing or previous use on the site.
Vacant sites	0	Units identified by the housing element which can be developed on currently vacant parcels, indicating fewer barriers to development. This may differ from pipeline/ approved projects (above), and/or may reflect units on sites other than those listed as nonvacant/infill.
Units requiring rezoning	0	Number of units proposed to be achieved through rezoning, per HCD's sites inventory guidelines.
Accessory Dwelling Units	480	
Site Inventory Date/ Version	Sept draft	

Source: Preliminary data from SCAG staff review of most recently available 6th cycle housing element update conducted between 12/27/21 and 1/7/22.

TRANSPORTATION

High Quality Transit Corridors

For Connect SoCal 2024, SCAG developed High Quality Transit Corridors (HQTCs) in the SCAG Region for plan year 2050, based on the following SB 375 language:

- High-Quality Transit Corridor (HQTC): A corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours (CA Public Resource Code Section 21155(b)).

HQTCs included in this Data/Map Book are based on the 2050 plan year transit network of Connect SoCal 2024 and are considered draft until the completion of Connect SoCal 2024. Further explanation of the methodology for identifying HQTCs is included in the Connect SoCal 2024 Transit Technical Report Appendix. Please note that SCAG updates its inventory of planned transit network with the adoption of a new RTP/SCS, once every four years. However, transit planning studies may be completed by transit agencies on a more frequent basis than the RTP/SCS is updated by SCAG. This data is intended for planning purposes only, and SCAG shall incur no responsibility or liability as to the completeness, currentness, or accuracy of this information. SCAG assumes no responsibility arising from use of this information by individuals, businesses, or other public entities. Users should consult with the appropriate transit provider(s) to obtain the latest information on transit routes, stop locations, and service intervals before making determinations regarding CEQA exemption or streamlining.



Transit Priority Areas and Major Transit Stops

For Connect SoCal 2024, SCAG developed Transit Priority Areas (TPAs) and major transit stops in the SCAG Region for plan year 2050. TPAs are Priority Development Areas that are within one half mile of existing or planned major transit stops in the region. A major transit stop is defined as a site containing an existing or planned rail or bus rapid transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. TPAs are where TOD can be realized – where people can live, work and play in higher density, compact communities with ready access to a multitude of safe and convenient transportation alternatives. Focusing regional growth in areas with planned or existing transit stops is key to achieving equity, economic, and environmental goals. Infill within TPAs can reinforce the assets of existing communities, efficiently leveraging existing infrastructure and potentially lessening impacts on natural and working lands. Growth within TPAs supports Connect SoCal's strategies for preserving natural lands and farmlands and alleviates development pressure in sensitive resource areas by promoting compact, focused infill development in established communities with access to high-quality transportation.

Major transit stops and the TPAs included in this Data/Map Book are based on the 2050 plan year transit network of Connect SoCal 2024. Please note that SCAG updates its inventory of planned transit network with the adoption of a new RTP/SCS, once every four years. However, transit planning studies may be completed by transit agencies on a more frequent basis than the RTP/SCS is updated by SCAG. This data is intended for planning purposes only, and SCAG shall incur no responsibility or liability as to the completeness, currentness, or accuracy of this information. SCAG assumes no responsibility arising from use of this information by individuals, businesses, or other public entities. Users should consult with the appropriate transit provider(s) to obtain the latest information on transit routes, stop locations, and service intervals before making determinations regarding CEQA exemption or streamlining.

Regional Bikeways

The Southern California Regional Bikeway Shapefile (RBS) builds on what has been compiled in coordination with each of the six County Transportation Commissions (Imperial, Orange, Los Angeles, Riverside, San Bernardino, and Ventura) for the 2020 RTP/SCS. SCAG developed standard data fields using existing fields from each county and others identified by stakeholders and consultants. Since the adoption of the 2020 RTP/SCS, SCAG further refined the data fields necessary to streamline and standardize digitization of the RBS and its associated attributes. For inclusion in the 2024 RTP/SCS, or Connect SoCal 2024, SCAG has added two data fields, lane count and lane direction, to simplify the RBS digitization to street centerlines.

The RBS includes both existing and proposed facilities and was compiled from shapefiles provided by each county transportation commission during the 2016 RTP/SCS and 2020 RTP/SCS. The Connect SoCal 2024 RBS includes updates provided by local jurisdictions following the adoption of the 2020 RTP/SCS. Commissions and local jurisdictions may use different strategies for compiling their files so some areas may be more up to date and contain different amounts of data than others.

Existing routes are facilities that currently are installed upon city streets or paths. Proposed facilities are those contained in city or county level plans that have not yet been constructed. Each route is classified based on definitions for bicycle routes as outlined below. Class I-IV are defined by the California Highway Design Manual. Class V is a SCAG defined route type.

Class Definitions:

- Class I Bikeway (Bike Path): Provides a completely separated facility for the exclusive use of bicycles and pedestrians with crossflow by vehicles minimized.
- Class II Bikeway (Bike Lane): Provides a striped lane for one-way bike travel on a street or highway.
- Class III Bikeway (Bike Route): Provides for shared use with pedestrian or motor vehicle traffic.
- Class IV Bikeway (Separated Bikeway): Provides for the exclusive use of bicycles and includes a separation (e.g., grade separation, flexible posts, inflexible physical barrier, or on-street parking) required between the separated bikeway and the through vehicular traffic.
- Class V Bikeway (Bicycle Friendly Boulevard): Bicycle Friendly Boulevard are facilities parallel to major corridors and that provide a calmer, safer alternative for bicyclists of all ages and skill levels. Bicycle Friendly Streets include traffic calming elements beyond traditional signage, such as roundabouts, diverters, curb extensions, etc.

Regional Truck Routes

The Southern California Regional Truck Route Shapefile (RTRS) has been compiled using the general plans and municipal codes of the jurisdictions in areas of each of the six County Transportation Commissions (Imperial, Orange, Los Angeles, Riverside, San Bernardino, and Ventura). SCAG has developed standard data fields based on information found in local general plans and municipal codes to identify roadways and roadway segments that are designated as truck routes by the cities. The RTRS includes truck routes on existing local facilities. Jurisdictions may use various operational criteria to define truck routes including number of axles, time of the day, weight-related restrictions, like minimum and maximum weights, gross and net weight limits, are the most commonly used criterion. Existing truck routes are those that are specifically identified as facilities where trucks are generally permitted or restricted during all times, or the majority, of a day. It should be recognized that most jurisdictions permit truck to travel on any roadway segment with clear limitations to their movement (e.g., direct delivery to locations

not on a designated route). Each route is at the discretion of its jurisdiction. Confirmation and updates to the RTRS will allow SCAG member cities to understand and develop policy regarding intracity and intercity truck route connections and gaps, and access to relevant land uses within jurisdictional boundaries.

GREEN REGION RESOURCE AREAS (SB 375)

As the region faces unprecedented challenges, it is important to coordinate regional land use and transportation strategies and address Southern California's growth and sustainability challenges in order to protect the SCAG region's natural assets and reduce future risks from climate change. The Green Region Resource Areas (GRRAs), derived from SB 375 statute and Connect SoCal 2020 strategies, highlights where future growth is not encouraged due to sensitivity to natural hazards, conservation value, federal and tribal land management, and a changing climate.

The Green Region Resources Areas consist of ten (10) topic areas broken into three categories: Resilience, Open Space/Habitat, and Administrative/Working Lands. GRRA layers have been selected based off guidance from SB 375 defined "resource areas." As a note, some GRRA layers may be comprised of multiple pieces of underlying source data.

Additionally, Multi-Benefit Asset Maps have been developed for each of the three categories, as well as a consolidated map. Areas in the region that have more instances of overlapping data layers for these themes are shown with relatively higher value on the map. For example, the Resilience map identifies areas with fire, flood, and coastal inundation risks, which may have higher needs for resilience strategies. This approach builds upon the 2020 Connect SoCal Growth Vision's approach by prioritizing areas with a confluence of assets. Note that some GRRA layers are not included in the Multi-Benefit Asset Maps (Endangered Species and Plants; Natural Community and Habitat Conservation Plans) or the growth forecast, and are presented for reference to inform local feedback on non-GRRA data elements.



Resilience

The Resilience category highlights areas within the region at risk due to climate change, such as flooding, coastal inundation (sea level rise), and wildfire risk. Information on the underlying datasets comprising the Resilience Multi-Benefit Asset Map can be found in the table below.

LAYER NAME	UNDERLYING DATASET(S)
Flood Areas	FEMA Effective: 100-Year Floodplains, 2017, FEMA
Coastal Inundation (Sea Level Rise)	Coastal Storm Modeling System (CoSMoS) for Southern California, v3.0, Phase 2, 2018, USGS
Wildfire Risk	Fire Hazard Severity Zones Local Responsibility Areas Maps, 2008, CAL FIRE
	Fire Hazard Severity Zones State Responsibility Areas Maps, 2007, CAL FIRE
	Wildland Urban Interface, 2020, CAL FIRE

- Flood Areas - The Flood Area data was obtained from the Digital Flood Insurance Rate Map (DFIRM), obtained from Federal Emergency Management Agency (FEMA) in August 2017. The DFIRM Database is a digital version of the FEMA Flood Insurance Rate Maps (FIRM)[4] that is designed for use with digital mapping and analysis software. The FIRM is created by FEMA for the purpose of floodplain management, mitigation, and insurance activities for the National Flood Insurance Program (NFIP).

4 The FIRM is the official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community. Since 1970s, the FEMA has created and updated the flood hazard maps for National Flood Insurance Program (NFIP). NFIP was created by the US Congress in 1968 to reduce future damage and to provide protection for property owners from potential loss through an insurance mechanism.

GREEN REGION RESOURCE AREAS

FEMA prepares the flood maps to show the extent of flood hazard in a flood prone community by conducting engineering studies called 'Flood Insurance Studies (FISs).' From the study, FEMA delineate Special Flood Hazard Areas (SFHAs), which are subject to inundation by a flood that has a 1 percent or greater chance of being equaled or exceeded during any given year. This type of flood is commonly referred to as the 100-year flood or base flood. The 100-year flood has a 26 percent chance of occurring during a 30 year period, the length of many mortgages. The 100-year flood is a regulatory standard used by Federal and most State agencies to administer floodplain management programs. The FIRM includes data on the 100-year (1% annual chance of occurring) and 500-year (0.2% annual chance of occurring) floodplains. The flood maps developed by FEMA are primary tools for state and local governments to mitigate the effects of flooding in their communities. The data are available to the public at FEMA's Map Service Center (https://msc.fema.gov/portal/). You may also request the related documents or other maps, such as FIS result report, or a Flood Boundary and Floodway Map (FBFM). For more information on the FIRM, refer to their website at https://www.fema.gov/flood-insurance-rate-map-firm. Please note the information included in this book includes only 100-year flood data.

- Coastal Inundation (Sea Level Rise) - The Coastal Inundation data was obtained from the Coastal Storm Modeling System (CoSMoS) for Southern California (v3.0, Phase 2). CoSMoS is an online mapping viewer that makes detailed predictions over large geographic scales of storm-induced coastal flooding and erosion for both current sea level rise (SLR) scenarios. The data included in this book depicts the potential inundation of coastal areas resulting from a projected 3 feet rise in sea level above current Mean Higher High Water (MHHW) conditions. CoSMoS v3.0 for Southern California shows projections for future climate scenarios (sea- level rise and storms) to provide emergency responders and coastal planners with critical storm-hazards information that can be used to increase public safety, mitigate physical damages, and more effectively manage and allocate resources within complex coastal settings. Phase 2 data for Southern California include storm-hazard information for the coast from the Mexican Border to Pt. Conception. For more information on CoSMoS v3.0 Phase 2, refer to the Summary of Methods at https://www.sciencebase.gov/catalog/file/get/57f1d4f3e4b0bc0bebfee139?name=CoSMoS_SoCalv3_Phase2_summary_of_methods.pdf
- Wildfire Risk - The Wildfire Risk layer depicts areas at risk of wildfires resulting in disastrous property loss. Wildfire Risk consists of the following datasets:

  CAL FIRE Fire and Resource Assessment Program (FRAP) Wildland-Urban Interface (WUI) and Wildland-Urban Intermix

  Wildfires resulting in disastrous property loss are referred to as "Wildland-Urban Interface" fires, or "interface fires." These fires may start as small vegetation fires or be part of large brush and forest fires. The Wildland-Urban Interface is distinct from areas of "Wildland-Urban Intermix" zones in which areas of human habitation are mixed with areas of flammable wildland vegetation. Intermix areas may extend from the edge of developed private land into Federal, private, and State jurisdictions. These data describe relative risk to areas of significant population density from wildfire by intersecting residential housing unit density with proximate fire threat to give a relative measure of potential loss of structures and threats to public safety from wildfire. The data was developed for the 2015 Assessment of Forest and Rangelands. It is derived from several data sources, including housing density, Fire Hazard Severity Zones, Unimproved Parcels, and Vegetation Cover. For more information, refer to the CAL FIRE website at: https://osfm.fire.ca.gov/divisions/code- development-and-analysis/wildfire-protection/

CAL FIRE Fire Hazard Severity Zones: Local and State Responsibility Areas Maps

State law requires CAL FIRE to designate areas, or make recommendations for local agency designation of areas, that are at risk from significant fire hazards based on fuels, terrain, weather, and other relevant factors. These areas at risk of interface fire losses are referred to by law as "Fire Hazard Severity Zones" (FHSZ). The Fire Hazard Severity Zone maps are developed using a science-based and field-tested model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior. Many factors are considered such as fire history, existing and potential fuel (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for the area. There are three levels of hazard in the Local and State Responsibility Areas: moderate, high and very high. The data in this book includes only high and very high levels of hazards. For more information, refer to the CAL FIRE website at https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness- and-mitigation/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/

Open Space/Habitat

The Open Space/Habitat category highlights topic areas related to open space and parks, conservation plan boundaries, and habitat areas sensitive to development, such as areas with endangered species and plants. Information on the underlying datasets comprising the Habitat Multi-Benefit Asset Map are provided in the following table; note that Endangered Species and Plants, as well as Natural Community and Habitat Conservation Plans, are included as individual maps for reference, and are not factored into the Multi-Benefit Asset Maps or Consolidated Map.

LAYER NAME	UNDERLYING DATASET(S)
Open Space and Parks	Save Our Agricultural Resources (SOAR), 2017, County of Ventura
	California Conservation Easement Database (CCED), 2021, Multiple sources
	California Protected Areas Database (CPAD), 2021, Multiple sources
Endangered Species and Plants*	California Natural Diversity Database, 2017, CA Department of Fish and Wildlife
Sensitive Habitat Areas	National Wetlands Inventory, 2020, US Fish and Wildlife Services
	2015 Areas of Conservation Emphasis (ACEIIv2), 2015, CA Department of Fish and Wildlife
	California Essential Habitat Connectivity Project, 2010, CA Department of Fish and Wildlife
Natural Community and Habitat Conservation Plans*	Conservation Plan Boundaries, Habitat Conservation Plans (HCPs) and Natural Community Conservation Plans (NCCPs), 2021, CA Department of Fish and Wildlife

Note: Layers marked with an asterisk (*) are included as individual maps for reference and are not factored into the Multi-Benefit Asset Maps or Consolidated Map.

- Open Space and Parks - As prescribed in SB 375, all publicly owned open space must be considered as part of Connect SoCal 2024. The Open Space and Parks topic area depicts conservation areas, open space, and parks across the region and consists of the following datasets:

  County of Ventura Save Open Space and Agricultural Resources (SOAR)

  SOAR is a series of voter initiatives that require a majority vote of the people before agricultural land or open space areas can be rezoned for development. The eight voter-

GREEN REGION RESOURCE AREAS

approved SOAR initiatives passed by the cities of Camarillo, Fillmore, Moorpark, Oxnard, Santa Paula, Simi Valley, Thousand Oaks and Ventura require voter approval for urban development beyond a City Urban Restriction Boundary (CURB), or, in the case of the City of Ventura, before rezoning agricultural land within the city's sphere of influence. The data in this book depicts the protect areas in Ventura County. For more information, refer to the SOAR website at: https://www.soarvc.org/.

California Conservation Easement Database (CCED)

The CCED contains lands protected under conservation easements, which are voluntary agreements with nonprofit land trusts and/or government agencies that allow landowners to limit the type or amount of development on their property while retaining private ownership of the land. CCED is maintained and published by GreenInfo Network with data updates published twice annually. The data in this book reflects data published in August 2021. For more information, refer to the CCED website at: https://data.cnra.ca.gov/dataset/california-conservation-easement-database.

California Protected Areas Database (CPAD)

The CPAD is a GIS inventory of all publicly owned protected open space lands in the State of California protected for open space purposes through fee ownership. CPAD is maintained and published by GreenInfo Network and consists of aggregated open space data from state, local, and other agencies. It is a parallel dataset to the CCED. The first version of the CPAD database was released in April 2014, the latest update is from December 2021. Please note, this book reflects data published in July 2021.

For a clear understanding of the database, it is important to understand two basic definitions of the database. First, the "protected" status in CPAD does not refer to a specific level of conservation for biodiversity values, but a general commitment to maintain the property for open space uses. Second, by fee ownership mechanism, it means that 1) the lands in CPAD are defined based on the agencies that own the fee title to the property, not the managing parties, and 2) CPAD is not the database of all public lands, but that of all "publicly owned" open space. The owning agencies include public and non-profits. Private owners are not currently included, except for parkland owned by some homeowner associations. For more details on the inclusion criteria, see the CPAD manual from their website at https://www.calands.org/wp-content/uploads/2021/12/CPAD-2021b-Database-Manual.pdf.

The database is prepared into three feature classes; Holdings, Units, and Super Units. Holdings are the parcel level open space information, which correspond to assessor or tax parcel boundaries. Units and Super Units are the aggregated features for the cartographic representation. (Units: the aggregation of Holdings into specific parks and reserves / Super Units: the aggregation of federal and state Holdings regardless county boundaries) All classes of data are downloadable through their website at http://www.calands.org. This book reflects only data under the Holdings feature class. For more information on CPAD update histories and changes, see their website at http://www.calands.org/data.

- Endangered Species and Plants* – The Endangered Species and Plants data includes an inventory of the status and locations of rare plants and animals in California. SCAG obtained the California Natural Diversity Database (CNDDB)[5] October 2017 version developed by the California Department of Fish and Wildlife's Biogeographic Data Branch (BDB). The CNDDB is a library of the location and condition of species of rare and sensitive plants, animals, and natural communities in California. It is updated on a continuous basis to be consistent and current but is not an exhaustive and comprehensive inventory of rare species and natural communities. Field verification for the absence and presence of sensitive species is required by end-users. The dataset shown on the map is based on the combination of the three data fields: element type, accuracy, and element occurrence count. Other fields in CNDDB describe the listing status, ranking, location, site description, and source references, to name a few. The types of elements (ELMTYPE) are specified as four categories of plant, animal, terrestrial community, and aquatic community.

VALUE	DEFINITION
1	Plant (ELMCODEs beginning with "P" or "N")
2	Animal (ELMCODEs beginning with "A" or "I")
3	Terrestrial community (ELMCODEs beginning with "CT")
4	Aquatic community (ELMCODEs beginning with "CA", "CE", "CL", "CM" or "CR")

The precision or accuracy level (ACC_CLASS) represents spatial uncertainty on a scale of one to ten, indicating both accuracy type and accuracy value.

VALUE	DEFINITION
80 meters	1: Specific bounded area with an 80 meter radius
Specific	2: Specific bounded area
Nonspecific	3: Non-specific bounded area
1/10 mile	4: Circular feature with a 150 meter radius (1/10 mile)
1/5 mile	5: Circular feature with a 300 meter radius (1/5 mile)
2/5 mile	6: Circular feature with a 600 meter radius (2/5 mile)
3/5 mile	7: Circular feature with a 1000 meter radius (3/5 mile)
4/5 mile	8: Circular feature with a 1,300 meter radius (4/5 mile)
1 mile	9: Circular feature with a 1,600 meter radius (1 mile)
5 miles	10: Circular feature with a 8,000 meter radius (5 miles)

The element occurrence count (EOCOUNT) represents how many occurrences share the same spatial feature. An EOCOUNT greater than one indicates the presence of a "multiple." For more information on the CNDDB, please refer to their website (https://www.wildlife.ca.gov/Data/CNDDB). The CNDDB is offered on a yearly subscription basis, and is prohibited from being distributed to anyone outside the subscribing organizations. The data can be ordered online at https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Also, the web- based CNDDB QuickView Tool which provides users with a list of all tracked elements that have been documented by the CNDDB to occur in a selected USGS 7.5' topographic quad or in a selected county is available at https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018410-cnddb-quickview-tool.

5 The CNDDB is a "natural heritage program" and is part of a nationwide network of similar programs overseen by NatureServe (formerly part of The Nature Conservancy). All natural heritage programs provide location and natural history information on special status plants, animals, and natural communities to the public, other agencies, and conservation organizations. The data help drive conservation decisions, aid in the environmental review of projects and land use changes and provide baseline data helpful in recovering endangered species and for research projects.

- Sensitive Habitat Areas – The Sensitive Habitat Areas data depicts areas sensitive to growth, such as wetlands, habitat connectivity, and habitat quality. This dataset identifies areas sensitive to growth due to natural habitats in wetlands, wildlife corridors, high-biodiversity areas, wildfire prone areas, and floodplains. Sensitive Habitat Areas consists of the following datasets:

  U.S. Fish and Wildlife Services National Wetlands Inventory

  Data on wetlands is sourced from the US Fish and Wildlife Services Wetlands Inventory (NWI), a publicly available resources that provides detailed information on the abundance, characteristics, and distribution of US wetlands. For more information and to access the NWI data, refer to the US Fish and Wildlife Services website at: https://www.fws.gov/node/264586.

  California Department of Fish and Wildlife Areas of Conservation Emphasis

  Data on habitat quality consists of data from the CA Department of Fish and Wildlife, recording Areas of Conservation Emphasis (ACEIIv2). ACEIIv2 consists of a statewide analysis of biological richness by 2.5 square mile hexagons to represent areas with high species richness, high levels of rarity and irreplaceability, and/or sensitive habitats. For more information, visit: https://databasin.org/datasets/d5ae610954114029acae112386eee8c9/. For a detailed description of data inputs and analyses, refer to the ACEII Project Report for at: https://nrmsecure.dfg.ca.gov/FileHandler.ashx?DocumentID=24326.

  California Department of Fish and Wildlife Habitat Connectivity Project

  Data on habitat connectivity corridors was derived from California Essential Habitat Connectivity Project, as developed by the California Department of Fish and Wildlife, which identifies large blocks of intact habitat or natural landscapes with connectivity corridors essential for local wildlife. This dataset benefits from feedback from a selection of federal, state, local, tribal, and non-governmental organizations throughout California, and was made publicly available in 2010.

  The California Department of Transportation (Caltrans) and California Department of Fish and Game (CDFG) commissioned the California Essential Habitat Connectivity Project because a functional network of connected wildlands is essential to the continued support of California's diverse natural communities in the face of human development and climate change. The Essential Connectivity Map depicts large, relatively natural habitat blocks that support native biodiversity (Natural Landscape Blocks) and areas essential for ecological connectivity between them (Essential Connectivity Areas). This coarse-scale map was based primarily on the concept of ecological integrity, rather than the needs of particular species. Essential Connectivity Areas are placeholder polygons that can inform land-planning efforts, but that should eventually be replaced by more detailed Linkage Designs, developed at finer resolution based on the needs of particular species and ecological processes. It is important to recognize that even areas outside of Natural Landscape Blocks and Essential Connectivity Areas support important ecological values that should not be "written off" as lacking conservation value. Furthermore, because the Essential Habitat Connectivity Map was created at the statewide scale, based on available statewide data layers, and ignored Natural Landscape Blocks smaller than 2,000 acres squared, it has errors of omission that should be addressed at regional and local scales.

- Natural Community and Habitat Conservation Plans* – This data set contains Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP) boundaries in California. NCCPs are California Department of Fish and Wildlife (CDFW) approved plans that take a broad-based approach to protect habitats and species. An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. Working with landowners, environmental organizations, and other interested parties, a local agency oversees the numerous activities that compose the development of an NCCP/HCP. CDFW and the US Fish and Wildlife Service provide the necessary support, direction, and guidance to NCCP/HCP participants. For more information on NCCP/HCPs, visit: https://www.wildlife.ca.gov/conservation/planning/nccp.

Administrative/Working Lands

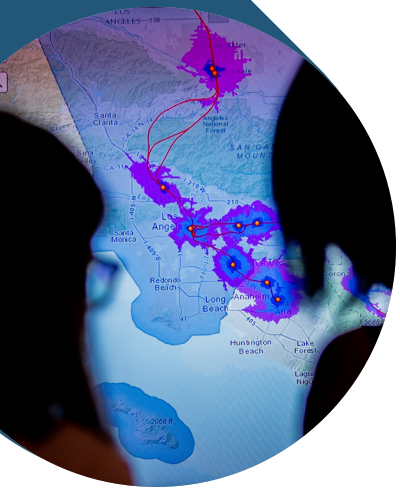
The Administrative/Working Lands category highlights areas with limited to no development allowed, such as tribal, military, and farmlands. Information on the underlying datasets comprising the Administrative/Working Lands Multi-Benefit Asset Map, as well as the individual Administrative/Working Lands layers can be found in the table below.

LAYER NAME	UNDERLYING DATASET(S)
Tribal Lands	American Indian Reservations / Federally Recognized Tribal Entities, 2021, CalOES
Military Installations	USA Department of Defense Lands, 2018, US Department of Defense
Farmlands	California Important Farmland Farmland Mapping & Monitoring Program (FMMP), 2018, CA Department of Conservation

- Tribal Lands - The American Indian Reservations / Federally Recognized Tribal Entities dataset depicts feature location, selected demographics and other associated data for the 561 Federally Recognized Tribal entities in the contiguous U.S. and Alaska. Categories included are: American Indian Reservations (AIR), Federally Recognized Tribal Entities (FRTE) and Alaska Native Villages (ANV). This dataset is used to identify tribal lands in the SCAG region. The data was obtained from the California Governor's Office of Emergency Services (CalOES) and depicts data as of September 2021. For more information, refer to https://gis-calema.opendata.arcgis.com/datasets/CalEMA::indian-lands-and-native-entities/about.
- Military Installations - In the United States, the federal government manages lands in significant parts of the country. These lands include 193 million acres managed by the US Forest Service in the nation's 154 National Forests and 20 National Grasslands, Bureau of Land Management lands that cover 247 million acres in Alaska and the Western United States, 150 million acres managed for wildlife conservation by the US Fish and Wildlife Service, 84 million acres of National Parks and other lands managed by the National Park Service and over 30 million acres managed by the Department of Defense. The Military Installations dataset displays military lands managed by the US Department of Defense. For more information, refer to https://www.arcgis.com/home/item.html?id=6b911a60a5a4465a85fd5c42668bf907#overview.
- Farmlands - Farmland information was obtained from the Farmland Mapping & Monitoring Program (FMMP) in the Division of Land Resource Protection in the California Department of Conservation. Established in 1982, the FMMP is to provide consistent and impartial data and analysis of agricultural land use and land use changes throughout

the State of California. For SCAG's purposes, data from year 2016 (and 2014 in areas where 2016 data was unavailable) underwent review and refinement by local jurisdictions through the Bottom-Up Local Input and Envisioning Process for Connect SoCal 2020.

The Farmlands dataset was obtained from the Farmland Mapping & Monitoring Program (FMMP) in the Division of Land Resource Protection in the California Department of Conservation. Established in 1982, the FMMP is to provide consistent and impartial data and analysis of agricultural land use and land use changes throughout the State of California. For more information, refer to https://gis.conservation.ca.gov/portal/home/item.html?id=c278df0ef3bc4476bb890e5509bcc5cf.



GEOGRAPHICAL BOUNDARIES

City Boundary and Sphere of Influence

City boundary and sphere of influence information are originally from each County's Local Agency Formation Commissions (LAFCO). The city boundary information included here is for the year 2019, the base year of Connect SoCal 2024. For inaccuracy or changes in city boundaries or sphere of influences, local jurisdictions would need to contact LAFCO to reflect the most accurate city and sphere boundaries.

Census Tract Boundary

The census tract boundaries are the 2020 TIGER/Line Shapefiles version, downloaded from U.S. Census, TIGER (Topologically Integrated Geographic Encoding and Referencing) Products website (https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.2020.html).

Transportation Analysis Zone (TAZ) Boundary

SCAG developed the Transportation Analysis Zones (TAZ) for the SCAG Region. This is used to facilitate Travel Demand and Land Use Modeling needs at SCAG.

DRAFT GROWTH FORECAST (SED)

SCAG prepares a growth forecast at multiple spatial scales with the primary objective of developing the Socioeconomic Data (SED) used to model federally and state-mandated transportation and air quality outcomes over 2019-2050.

The demographic/economic forecast of population, households, and employment is developed at the regional and county levels, was assisted by a panel of experts, and was shared with SCAG's policy committees on February 3, 2022. The region was expected to grow by 1.7 million people, 1.5 million households, and 1.3 million jobs. In all three measures, expected regional growth was lower than in the last RTP/SCS, Connect SoCal 2020.

The small-area forecast of households and employment is developed at the jurisdiction and Transportation Analysis Zone (TAZ) levels and relies primarily on local land use data and existing housing and employment data to allocate county-level growth.

Connect SoCal 2024's growth forecast is the starting point for reaching plan objectives. In past cycles, SCAG developed scenarios based on priority growth areas and constraint areas following the conclusion of local review. In contrast, the preliminary growth forecast for Connect SoCal 2024 sought to integrate growth strategies from prior plans as well as to integrate under-development local plans associated with the 6th cycle housing element update prior to local review. The objective is to strengthen the connection between regional objectives and local policies which are reasonably foreseeable during the Connect SoCal 2024 horizon.



As such, the preliminary household forecast at the jurisdiction and TAZ-levels explicitly sought to (i) reflect capacity changes following the 6th cycle of RHNA, (ii) emphasize growth in four types of Priority Development Areas (PDAs), and (iii) minimize growth in overlapping Green Region Resources Areas (GRRAs), as shown in the Consolidated Map. In order to accomplish this, the small area forecast considers local growth capacity by the following combination of PDAs and GRRAs in twenty steps which reflect the regional strategy:

Number of Priority Development Areas	4	3	2	1	0	4	3	2	1	0	4	3	2	1	0	4	3	2	1	0
Number of Green Region Resource Areas	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2	3+	3+	3+	3+	3+
Step #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

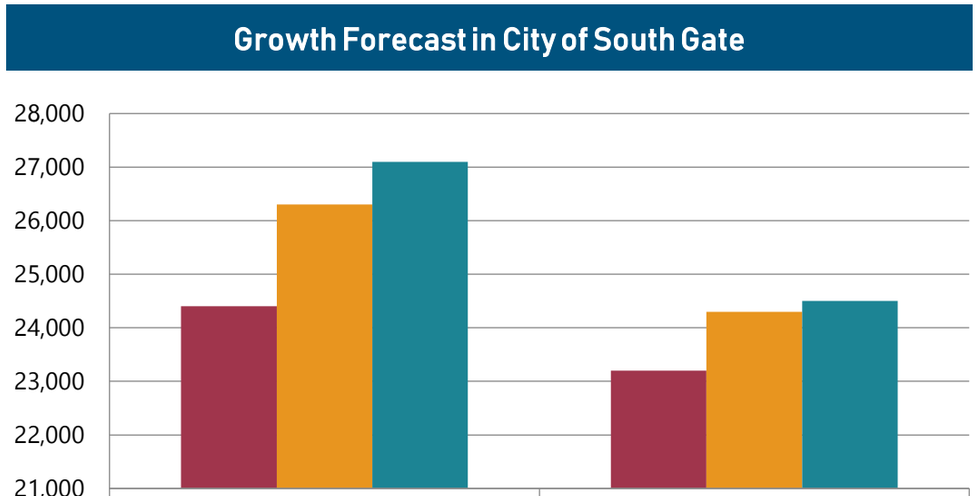
The forecast of total employment at the jurisdiction and TAZ-levels integrates the demographic/economic forecast with locally-reviewed job growth from the last plan and updated land use and employment data across 20 industry sectors.

SCAG invited local jurisdictions to provide input to the growth and land use assumptions, with the understanding that this information is developed in a voluntary, bottom-up process based on interest and participation at the option of each jurisdiction.

The draft growth forecast reflects input from local jurisdictions, and projects 2.3 percent higher household growth and 1.0 percent higher employment growth than the preliminary forecast region-wide. With guidance from the Technical Working Group (TWG), staff found that the draft growth forecast was both technically sound and furthered the plan's targets and objectives beyond what was developed in Connect SoCal 2020.

DRAFT GROWTH FORECAST (SED)

The chart below shows the draft jurisdiction-level growth forecast:



	Households	Employment
2019	24,400	23,200
2035	26,300	24,300
2050	27,100	24,500

The draft Connect SoCal 2024 growth projection reflects SCAG's preliminary, expert-informed growth projection and integrates all edits made by local jurisdictions to total households and total employment in 2019, 2035, and 2050 as part of the Local Data Exchange (LDX) process. These data reflect final input from jurisdictions which provided input or were granted an extension prior to the December 2, 2022 deadline. As such these plan data represent a snapshot in time and may not reflect subsequently available information. Please contact local jurisdictions directly to ensure the most up-to-date planning, development, and construction information.

DEFINITIONS

HOUSEHOLD: An occupied housing unit. Occupants may be one individual, a single family, two or more families living together, or any other group of related or unrelated individuals who share their usual place of residence.

EMPLOYMENT: The number of total jobs counted by place of work. Employment includes wage and salary jobs and self employment (e.g. independent contractors).

Notes: (1) Please note that population data are not requested as part of the local data exchange process. (2) While Government Code 65080(b)(1)(B) et seq. comments on the relationship of the RTP/SCS to the RHNA, a specific requirement does not exist such that forecased household growth at the jurisdictional level is numerically equivalent to a jurisdiction's Regional Housing Needs Allocation.

APPENDIX 1

Sustainable Communities Project (SCP) Criteria
(Extracted from Senate Bill No. 375 Chapter 728)

Chapter 4.2. Implementation of the Sustainable Communities Strategy

21155.1. If the legislative body finds, after conducting a public hearing, that a transit priority project meets all of the requirements of subdivisions (a) and (b) and one of the requirements of subdivision (c), the transit priority project is declared to be a sustainable communities project and shall be exempt from this division.

(a) The transit priority project complies with all of the following environmental criteria:

(1) The transit priority project and other projects approved prior to the approval of the transit priority project but not yet built can be adequately served by existing utilities, and the transit priority project applicant has paid, or has committed to pay, all applicable in-lieu or development fees.

(2)

(A) The site of the transit priority project does not contain wetlands or riparian areas and does not have significant value as a wildlife habitat, and the transit priority project does not harm any species protected by the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.), the Native Plant Protection Act (Chapter 10 (commencing with Section 1900) of Division 2 of the Fish and Game Code), or the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), and the project does not cause the destruction or removal of any species protected by a local ordinance in effect at the time the application for the project was deemed complete.

(B) For the purposes of this paragraph, "wetlands" has the same meaning as in the United States Fish and Wildlife Service Manual, Part 660 FW 2 (June 21, 1993).

(C) For the purposes of this paragraph:

(i) "Riparian areas" means those areas transitional between terrestrial and aquatic ecosystems and that are distinguished by gradients in biophysical conditions, ecological processes, and biota. A riparian area is an area through which surface and subsurface hydrology connect waterbodies with their adjacent uplands. A riparian area includes those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems. A riparian area is adjacent to perennial, intermittent, and ephemeral streams, lakes, and estuarine-marine shorelines.

(ii) "Wildlife habitat" means the ecological communities upon which wild animals, birds, plants, fish, amphibians, and invertebrates depend for their conservation and protection.

(iii) Habitat of "significant value" includes wildlife habitat of national, statewide, regional, or local importance; habitat for species protected by the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531, et seq.), the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code), or the Native Plant Protection Act (Chapter 10 (commencing with Section 1900) of Division 2 of the Fish and Game Code); habitat identified as candidate, fully protected, sensitive, or species of special status by local, state, or federal agencies; or habitat essential to the movement of resident or migratory wildlife.

(3) The site of the transit priority project is not included on any list of facilities and sites compiled pursuant to Section 65962.5 of the Government Code.

(4) The site of the transit priority project is subject to a preliminary endangerment assessment prepared by a registered environmental assessor to determine the existence of any release of a hazardous substance on the site and to determine the potential for exposure of future occupants to significant health hazards from any nearby property or activity.

(A) If a release of a hazardous substance is found to exist on the site, the release shall be removed or any significant effects of the release shall be mitigated to a level of insignificance in compliance with state and federal requirements.

(B) If a potential for exposure to significant hazards from surrounding properties or activities is found to exist, the effects of the potential exposure shall be mitigated to a level of insignificance in compliance with state and federal requirements.

(5) The transit priority project does not have a significant effect on historical resources pursuant to Section 21084.1.

(6) The transit priority project site is not subject to any of the following:

(A) A wildland fire hazard, as determined by the Department of Forestry and Fire Protection, unless the applicable general plan or zoning ordinance contains provisions to mitigate the risk of a wildland fire hazard.

(B) An unusually high risk of fire or explosion from materials stored or used on nearby properties.

(C) Risk of a public health exposure at a level that would exceed the standards established by any state or federal agency.

(D) Seismic risk as a result of being within a delineated earthquake fault zone, as determined pursuant to Section 2622, or a seismic hazard zone, as determined pursuant to Section 2696, unless the applicable general plan or zoning ordinance contains provisions to mitigate the risk of an earthquake fault or seismic hazard zone.

(E) Landslide hazard, flood plain, flood way, or restriction zone, unless the applicable general plan or zoning ordinance contains provisions to mitigate the risk of a landslide or flood.

(7) The transit priority project site is not located on developed open space.

(A) For the purposes of this paragraph, "developed open space" means land that meets all of the following criteria:

(i) Is publicly owned, or financed in whole or in part by public funds.

(ii) Is generally open to, and available for use by, the public.

(iii) Is predominantly lacking in structural development other than structures associated with open spaces, including, but not limited to, playgrounds, swimming pools, ballfields, enclosed child play areas, and picnic facilities.

(B) For the purposes of this paragraph, "developed open space" includes land that has been designated for acquisition by a public agency for developed open space, but does not include lands acquired with public funds dedicated to the acquisition of land for housing purposes.

(8) The buildings in the transit priority project are 15 percent more energy efficient than required by Chapter 6 of Title 24 of the California Code of Regulations and the buildings and landscaping are designed to achieve 25 percent less water usage than the average household use in the region.

(b) The transit priority project meets all of the following land use criteria:

(1) The site of the transit priority project is not more than eight acres in total area.

(2) The transit priority project does not contain more than 200 residential units.

(3) The transit priority project does not result in any net loss in the number of affordable housing units within the project area.

(4) The transit priority project does not include any single level building that exceeds 75,000 square feet.

(5) Any applicable mitigation measures or performance standards or criteria set forth in the prior environmental impact reports, and adopted in findings, have been or will be incorporated into the transit priority project.

(6) The transit priority project is determined not to conflict with nearby operating industrial uses.

(7) The transit priority project is located within one-half mile of a rail transit station or a ferry terminal included in a regional transportation plan or within one-quarter mile of a high-quality transit corridor included in a regional transportation plan.

(c) The transit priority project meets at least one of the following three criteria:

(1) The transit priority project meets both of the following:

(A) At least 20 percent of the housing will be sold to families of moderate income, or not less than 10 percent of the housing will be rented to families of low income, or not less than 5 percent of the housing is rented to families of very low income.

(B) The transit priority project developer provides sufficient legal commitments to the appropriate local agency to ensure the continued availability and use of the housing units for very low, low-, and moderate-income households at monthly housing costs with an affordable housing cost or affordable rent, as defined in Section 50052.5 or 50053 of the Health and Safety Code, respectively, for the period required by the applicable financing. Rental units shall be affordable for at least 55 years. Ownership units shall be subject to resale restrictions or equity sharing requirements for at least 30 years.

(2) The transit priority project developer has paid or will pay in-lieu fees pursuant to a local ordinance in an amount sufficient to result in the development of an equivalent number of units that would otherwise be required pursuant to paragraph (1).

(3) The transit priority project provides public open space equal to or greater than five acres per 1,000 residents of the project.

APPENDIX 2

Draft Socioeconomic Estimates and Projection by TAZ within Jurisdiction
(Split by Jurisdictional Boundary)

TAZ	Household			Employment		
	2019	2035	2050	2019	2035	2050
21588100	471	471	471	46	53	54
21593100	483	483	483	25	25	25
21593200	533	533	533	85	108	111
21596100	295	393	485	123	147	148
21596200	786	1,017	1,067	440	510	519
21598100	508	692	767	637	662	665
21598200	487	718	859	306	360	399
21599100	298	298	298	2,203	2,203	2,204
21599200	582	582	582	140	159	160
21599300	226	226	226	82	84	85
21609100	576	661	690	160	178	180
21609200	527	589	606	480	528	532
21612100	535	561	579	278	283	284
21612200	698	698	698	3	3	3
21616100	662	891	972	231	263	267
21627100	824	824	824	109	134	136
21627200	274	274	274	274	306	308
21630100	496	496	496	244	275	276
21630200	592	592	592	180	203	204
21630300	613	613	613	47	58	59
21638100	718	718	718	217	228	231
21638200	219	219	219	1,571	1,575	1,577
21638300	465	479	488	113	115	117
21641100	1,020	1,020	1,020	243	243	245
21641200	515	515	515	152	160	161
21644100	618	618	618	30	30	30
21644200	756	756	756	242	258	259
21662100	385	385	385	61	61	61
21662200	650	650	650	583	607	617
21662300	519	519	519	284	304	305
21666100	604	663	673	176	221	235
21666200	479	479	479	252	265	266
21666300	356	356	356	448	484	486
21675100	312	312	312	2,058	2,086	2,090
21675200	680	796	877	431	451	453
21695100	249	249	249	149	160	160
21695200	608	718	799	517	540	543
21695300	412	759	891	2,152	2,213	2,219

DISCLAIMER

The draft Connect SoCal 2024 growth projection reflects SCAG's preliminary, expert-informed growth projection and integrates all edits made by local jurisdictions to total households and total employment in 2019, 2035, and 2050 as part of the Local Data Exchange (LDX) process. These data reflect final input from jurisdictions which provided input or were granted an extension prior to the December 2, 2022 deadline. As such these plan data represent a snapshot in time and may not reflect subsequently available information. Please contact local jurisdictions directly to ensure the most up-to-date planning, development, and construction information.

TAZ-level growth projection data are a tool to understand how regional policies and strategies may be reflected at the neighborhood level. They reflect one set of future growth assumptions that would be consistent with the Sustainable Communities Strategy (SCS); however, there are other development assumptions and growth patterns that would also be consistent with the SCS. As such they may not be used to show project inconsistency with Connect SoCal 2024. TAZ-level growth projection data are advisory and non-binding and there is no obligation by a jurisdiction to change its land use policies, General Plan, or regulations to be consistent with them.

APPENDIX 2

Draft Socioeconomic Estimates and Projection by TAZ within Jurisdiction
(Split by Jurisdictional Boundary)

TAZ	Household			Employment		
	2019	2035	2050	2019	2035	2050
21695400	694	790	820	159	161	163
21695500	583	583	583	141	168	171
21713100	510	510	510	1,289	1,308	1,309
21713200	397	397	397	174	185	187
21713300	649	653	653	445	492	497
21713400	434	434	434	298	308	311
21714100	635	635	635	329	356	360
21714200	441	441	441	4,597	4,708	4,769
21760100	0	0	0	26	26	26
TOTAL	24,374	26,266	27,112	23,230	24,255	24,467

DISCLAIMER

The draft Connect SoCal 2024 growth projection reflects SCAG's preliminary, expert-informed growth projection and integrates all edits made by local jurisdictions to total households and total employment in 2019, 2035, and 2050 as part of the Local Data Exchange (LDX) process. These data reflect final input from jurisdictions which provided input or were granted an extension prior to the December 2, 2022 deadline. As such these plan data represent a snapshot in time and may not reflect subsequently available information. Please contact local jurisdictions directly to ensure the most up-to-date planning, development, and construction information.

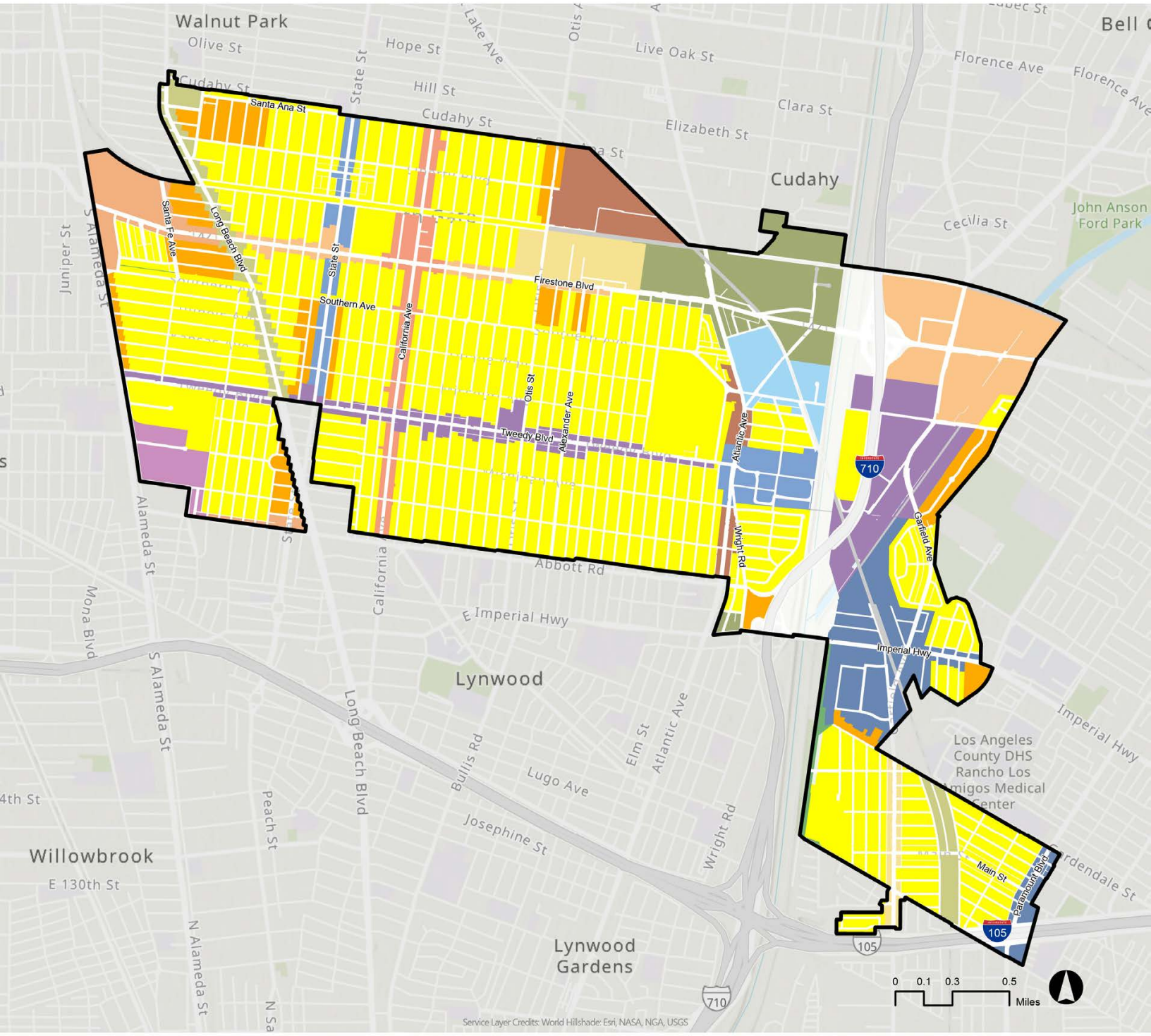
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MAP LIST

THE LIST OF GIS MAPS INCLUDED:

- General Plan Land Use with Local General Plan Designations
- General Plan Land Use with SCAG Land Use Codes
- Zoning Codes with Local Zoning Codes
- Zoning Codes with SCAG Land Use Codes
- Specific Plan Land Use with SCAG Land Use Codes
- Existing Land Use with SCAG Land Use Codes
- Key Entitlements
- Neighborhood Mobility Areas (NMAs)
- Livable Corridors
- Job Centers
- High Quality Transit Corridors (HQTCs)
- Transit Priority Areas (TPAs) and Major Transit Stops
- Regional Bikeways
- Regional Truck Routes
- Green Region Resource Areas: Consolidated
- Green Region Resource Areas: Resilience
- Green Region Resource Areas: Flood Hazard Areas
- Green Region Resource Areas: Coastal Inundation (Sea Level Rise)
- Green Region Resource Areas: Wildfire Risk
- Green Region Resource Areas: Habitat
- Green Region Resource Areas: Open Space and Parks
- Green Region Resource Areas: Endangered Species/Plants
- Green Region Resource Areas: Sensitive Habitat Areas
- Green Region Resource Areas: Natural Community and Habitat Conservation
- Green Region Resource Areas: Administrative/Working Lands
- Green Region Resource Areas: Tribal Nations
- Green Region Resource Areas: Military Installations
- Green Region Resource Areas: Farmlands
- Jurisdiction Boundary and Sphere of Influence
- 2020 Census Tract Boundary
- Transportation Analysis Zone (TAZ) Tier 2 Boundary



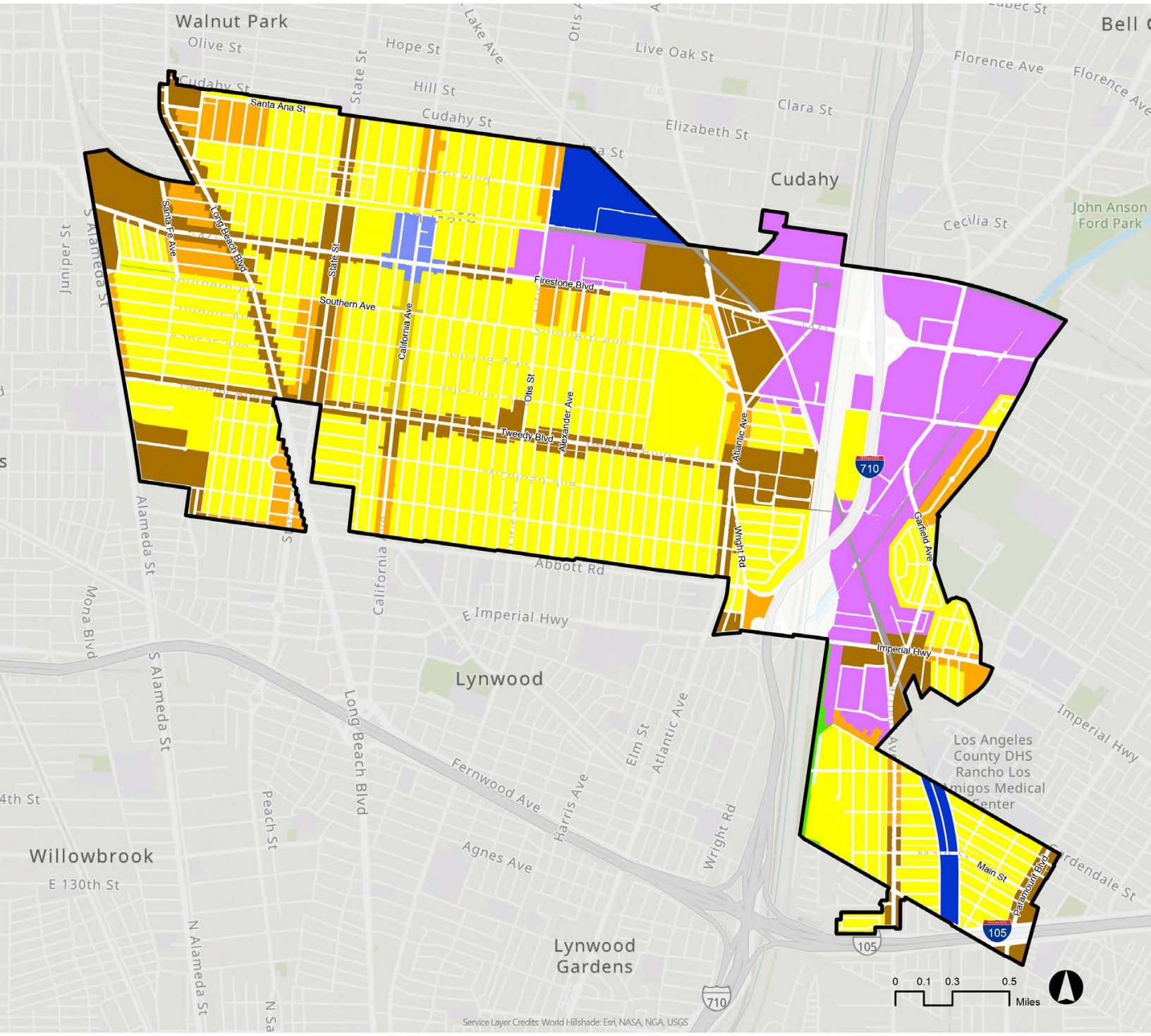
2019 General Plan Land Use in City of South Gate

(Local Jurisdiction's Land Use Designations)

- Neighborhood Low
- Neighbohood Medium
- Open Space
- ROW
- Ardine Industrial
- Civic Center
- South Gate College [2 Sub Areas]
- El Paseo/South Gate Towne Center [3 Sub Areas]
- Firestone Industrial
- Gateway [4 Sub Areas]
- Hollydale Industrial
- Imperial [3 Sub Areas]
- Tweedy Educational District
- Rayo Industrial [2 Sub Areas]
- South Gate Triangle [2 Sub Areas]
- Southwest Industrial
- Atlantic [2 Sub Areas]
- California [5 Sub Areas]
- Century
- Firestone
- Garfield [3 Sub Areas]
- Imperial West
- Long Beach [3 Sub Areas]
- Paramount
- State [4 Sub Areas]
- Tweedy [6 Sub Areas]

Data Source: City of South Gate, SCAG | Data Updated: 2023 | Map Created: 9/8/2023

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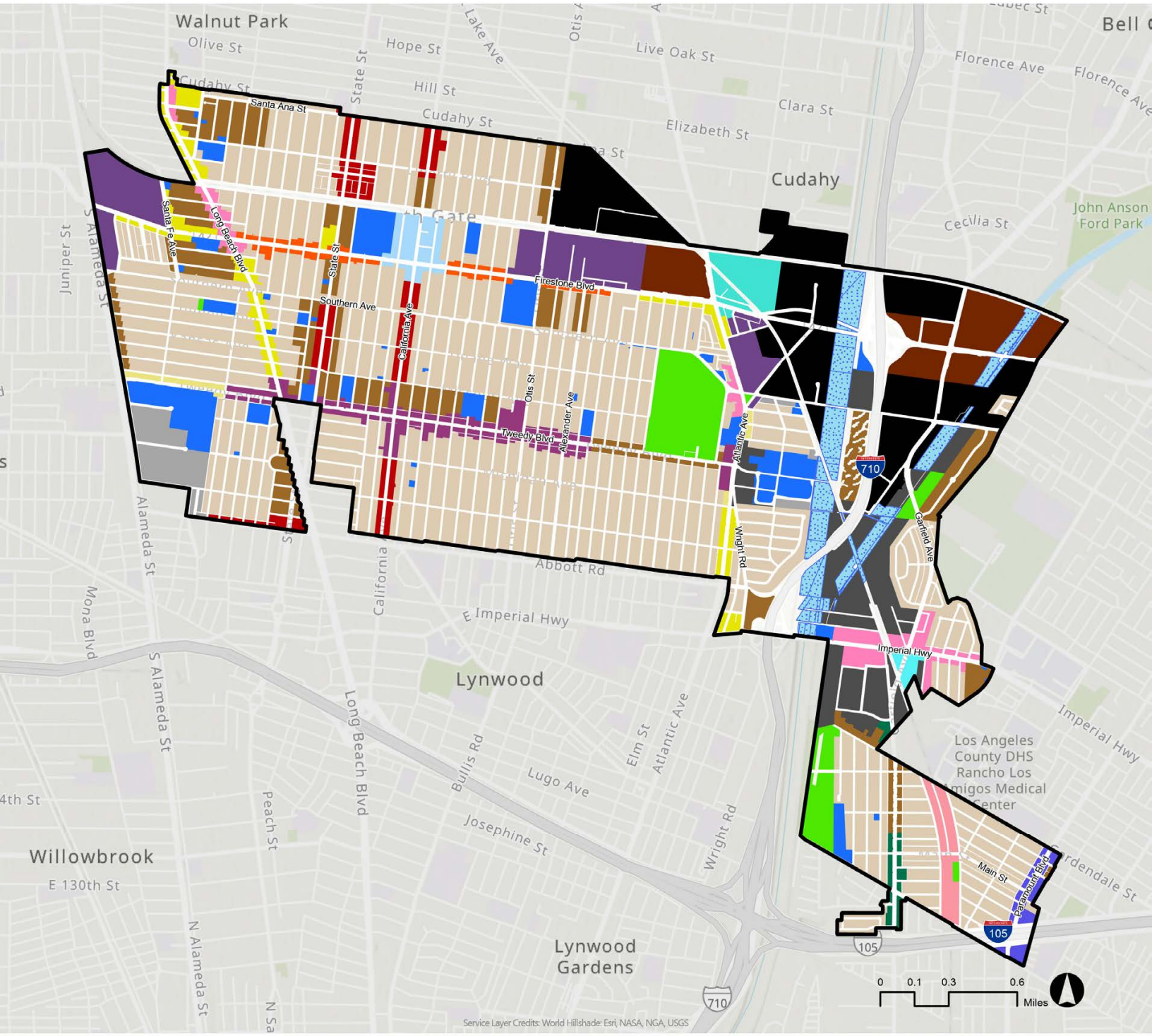
2019 General Plan Land Use in City of South Gate

(SCAG Land Use Codes)

- Single Family Residential
- Multi-Family Residential
- Mobile Homes and Trailer Parks
- Mixed Residential
- Rural Residential
- General Office
- Commercial and Services
- Facilities
- Education
- Military Installations
- Industrial
- Transportation, Communications, and Utilities
- Mixed Commercial and Industrial
- Mixed Residential and Commercial
- Open Space and Recreation
- Agriculture
- Vacant
- Water
- Specific Plan
- Under Construction
- Undevelopable
- Unknown

Data Source: City of South Gate, SCAG | Data Updated: 2023 | Map Created: 9/6/2023

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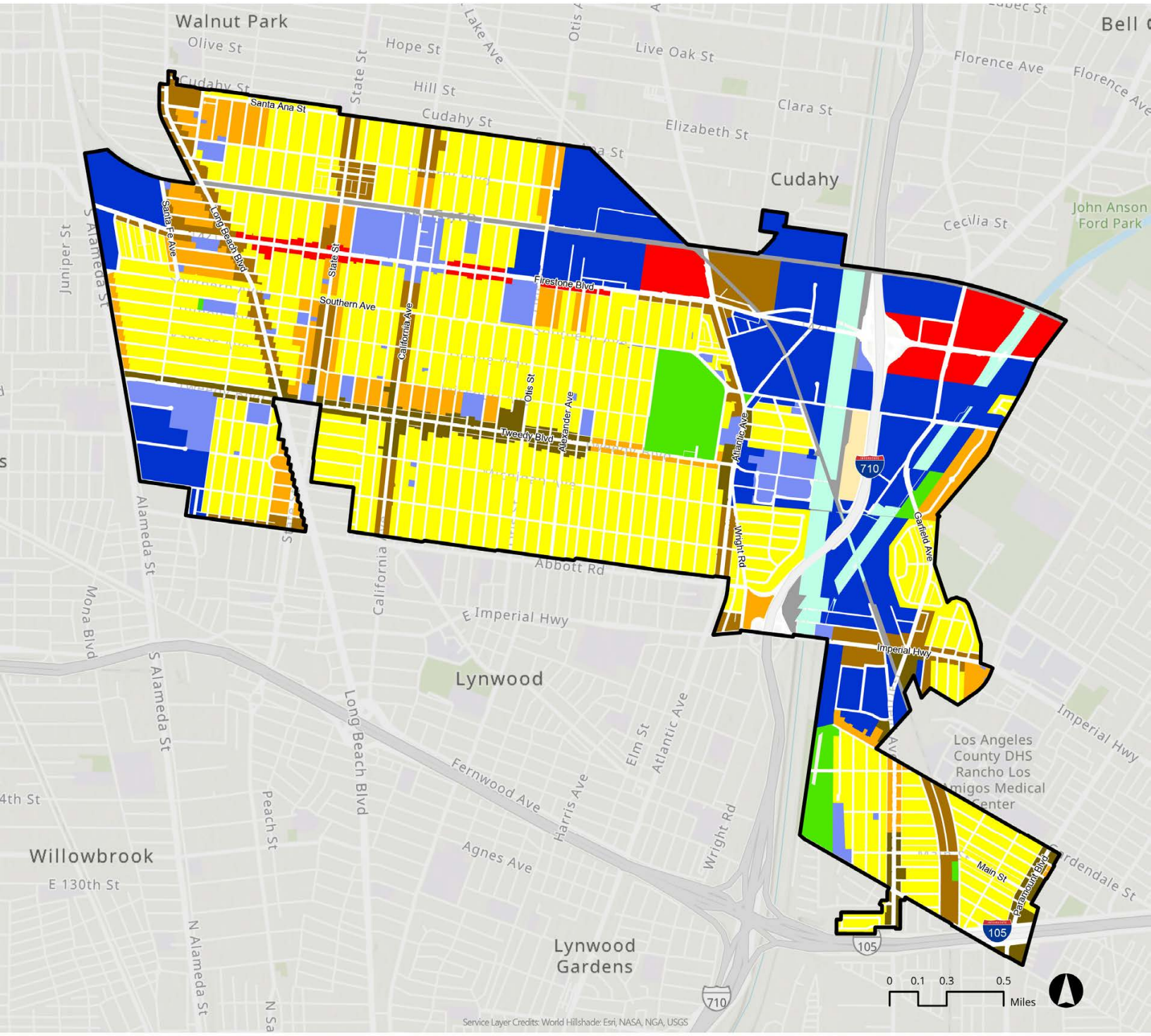
2019 Zoning Codes in City of South Gate

(Local Jurisdiction's Zoning Codes)

- CC Civic Center
- TV Transit Village
- IF Industrial Flex
- CDR1 Corridor 1
- CDR2 Corridor 2
- CDR3 Corridor 3
- UN Urban Neighborhood
- MS Main Street
- NL Neighborhood Low
- NM Neighborhood Medium
- MH Mobile Home Park
- CV Civic
- OS Open Space
- RC Regional Commercial
- LI Light Industrial
- M2 Light Manufacturing
- M3 Heavy Manufacturing
- HMU1 Specific Plan
- HMU2 Specific Plan
- HMU3 Specific Plan
- TMU1 Specific Plan
- TMU2 Specific Plan
- River

Data Source: City of South Gate, SCAG | Data Updated: 2023 | Map Created: 9/8/2023

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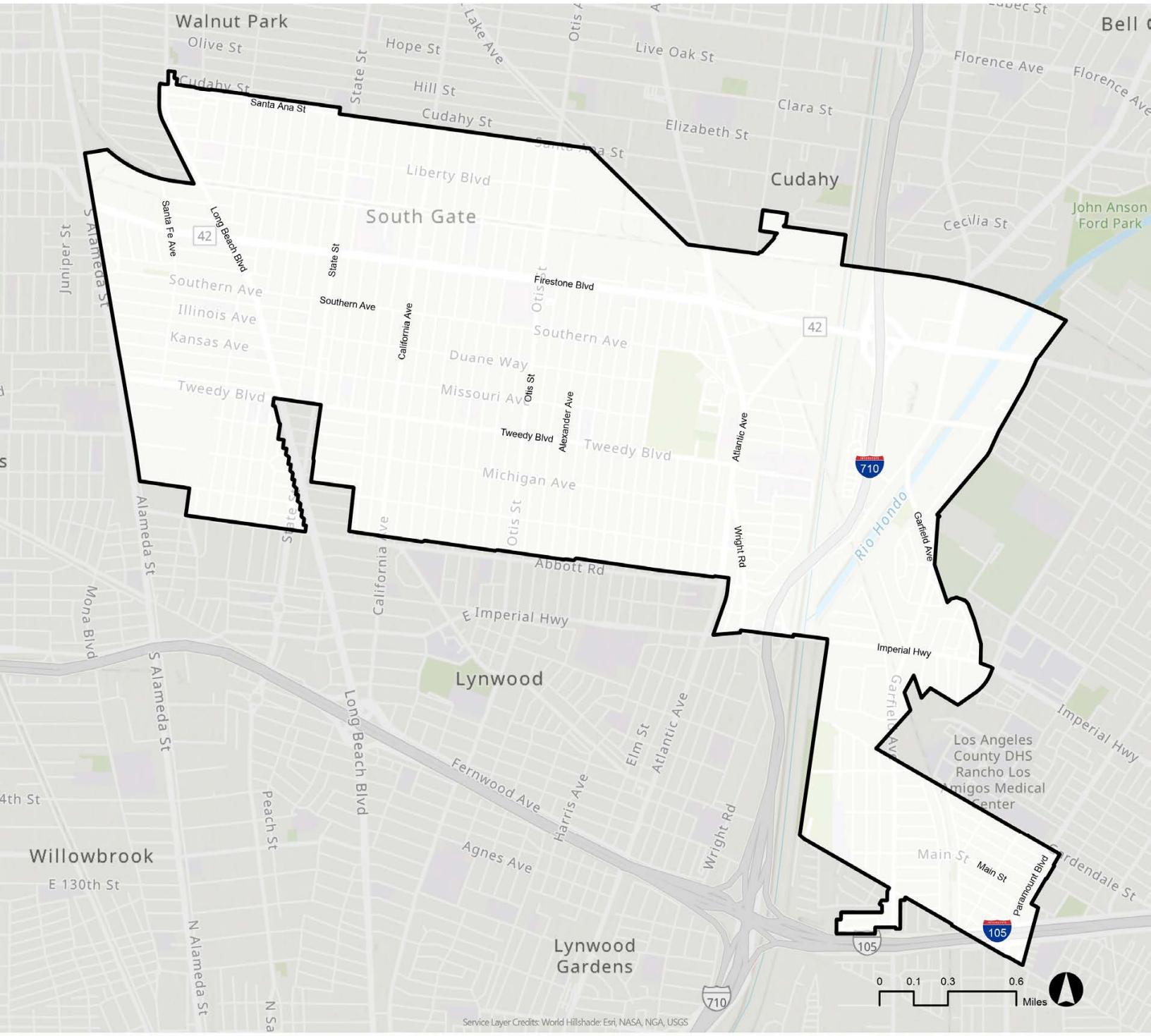
2019 Zoning Codes in City of South Gate

(SCAG Land Use Codes)

- Single Family Residential
- Multi-Family Residential
- Mobile Homes and Trailer Parks
- Mixed Residential
- Rural Residential
- General Office
- Commercial and Services
- Facilities
- Education
- Military Installations
- Industrial
- Transportation, Communications, and Utilities
- Mixed Commercial and Industrial
- Mixed Residential and Commercial
- Open Space and Recreation
- Agriculture
- Vacant
- Water
- Specific Plan
- Under Construction
- Undevelopable
- Unknown

Data Source: City of South Gate, SCAG | Data Updated: 2023 | Map Created: 9/7/2023

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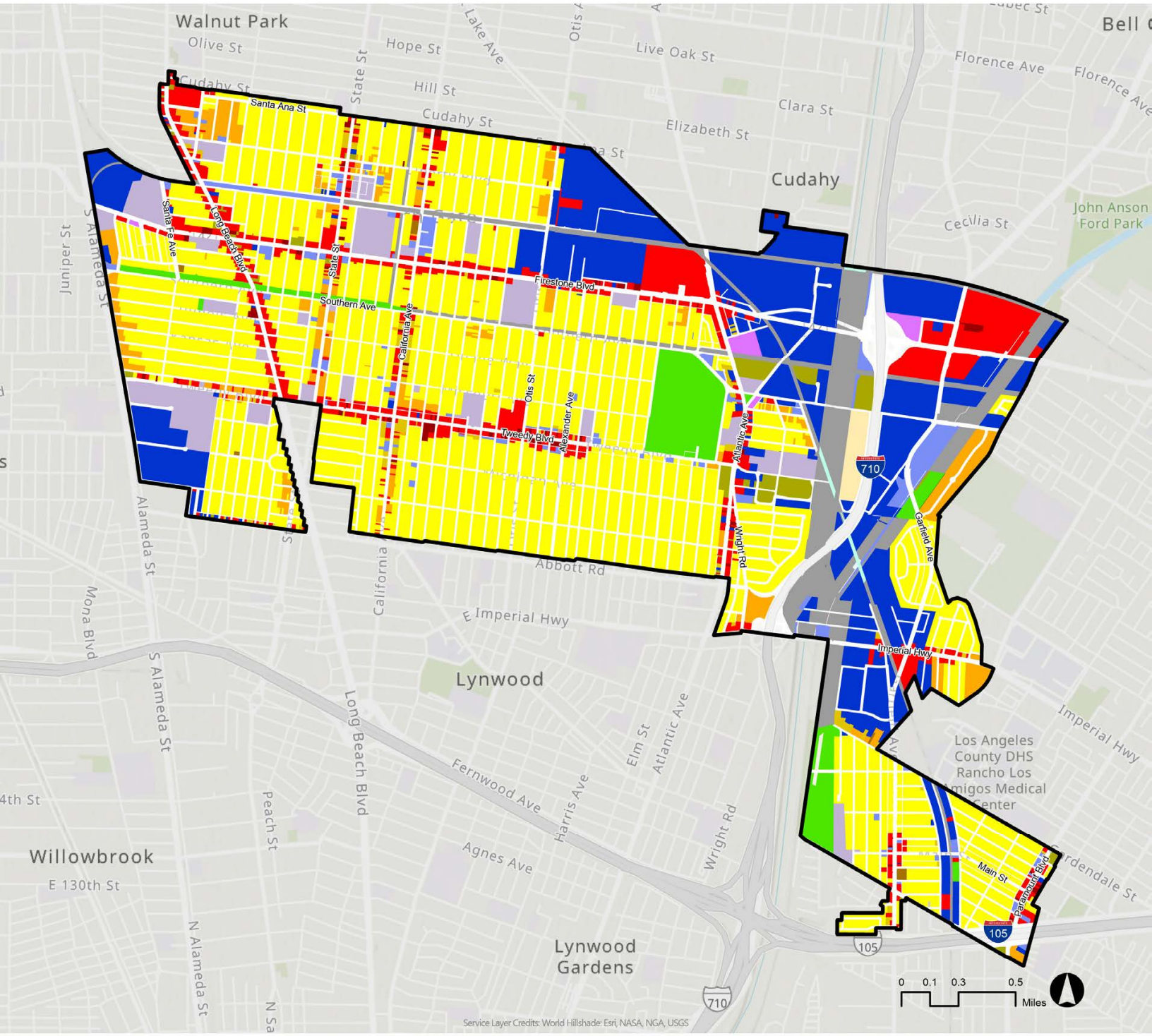
2019 Specific Plan Land Use in City of South Gate

(SCAG Land Use Codes)

- Single Family Residential
- Multi-Family Residential
- Mobile Homes and Trailer Parks
- Mixed Residential
- Rural Residential
- General Office
- Commercial and Services
- Facilities
- Education
- Military Installations
- Industrial
- Transportation, Communications, and Utilities
- Mixed Commercial and Industrial
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- Undevelopable
- Unknown

Data Source: City of South Gate, SCAG | Data Updated: 2023 | Map Created: 9/6/2023

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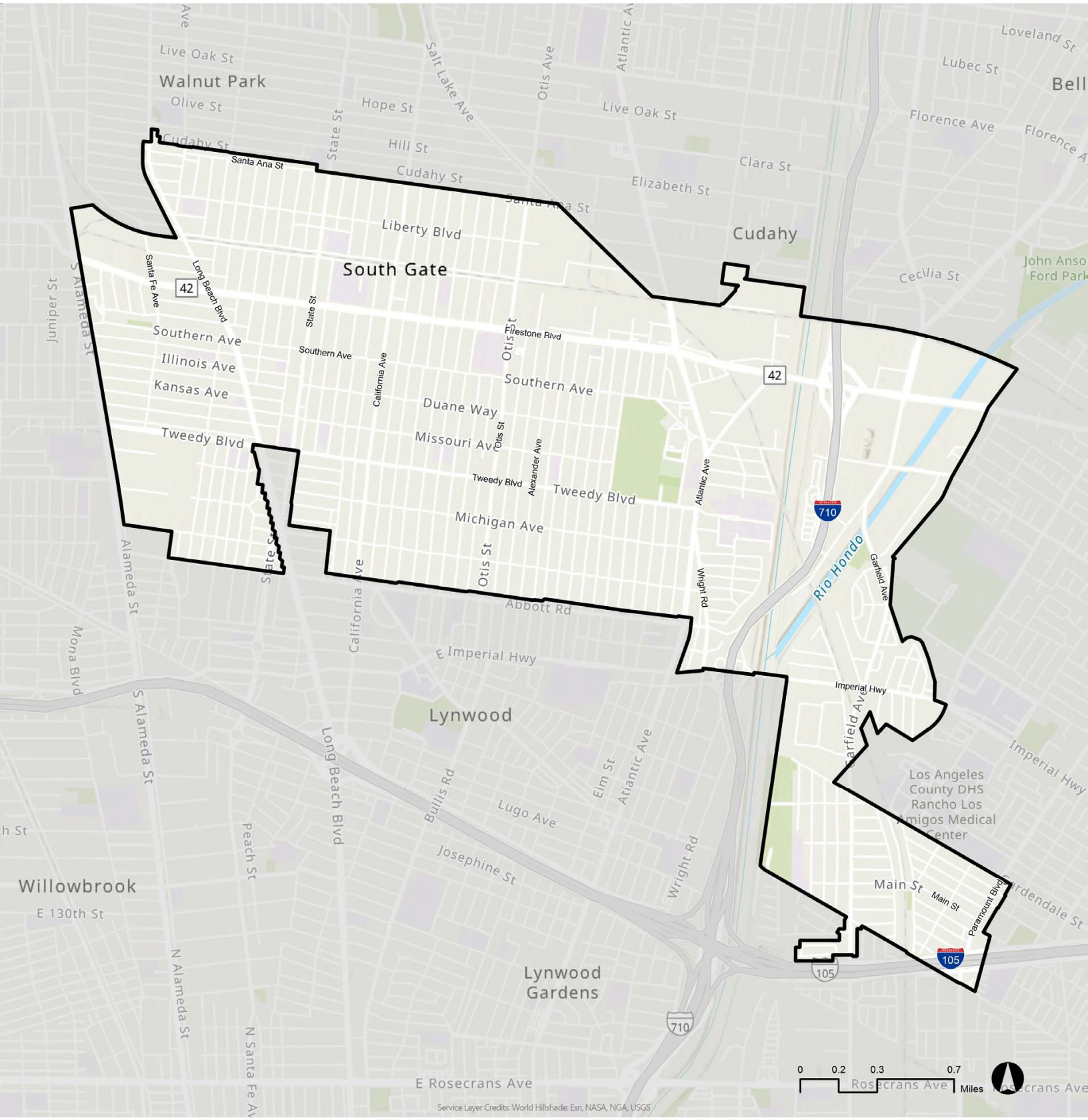
2019 Existing Land Use in City of South Gate

(SCAG Land Use Codes)

- Single Family Residential
- Multi-Family Residential
- Mobile Homes and Trailer Parks
- Mixed Residential
- Rural Residential
- General Office
- Commercial and Services
- Facilities
- Education
- Military Installations
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- Unknown

Data Source: City of South Gate, SCAG | Data Updated: 2023 | Map Created: 9/6/2023

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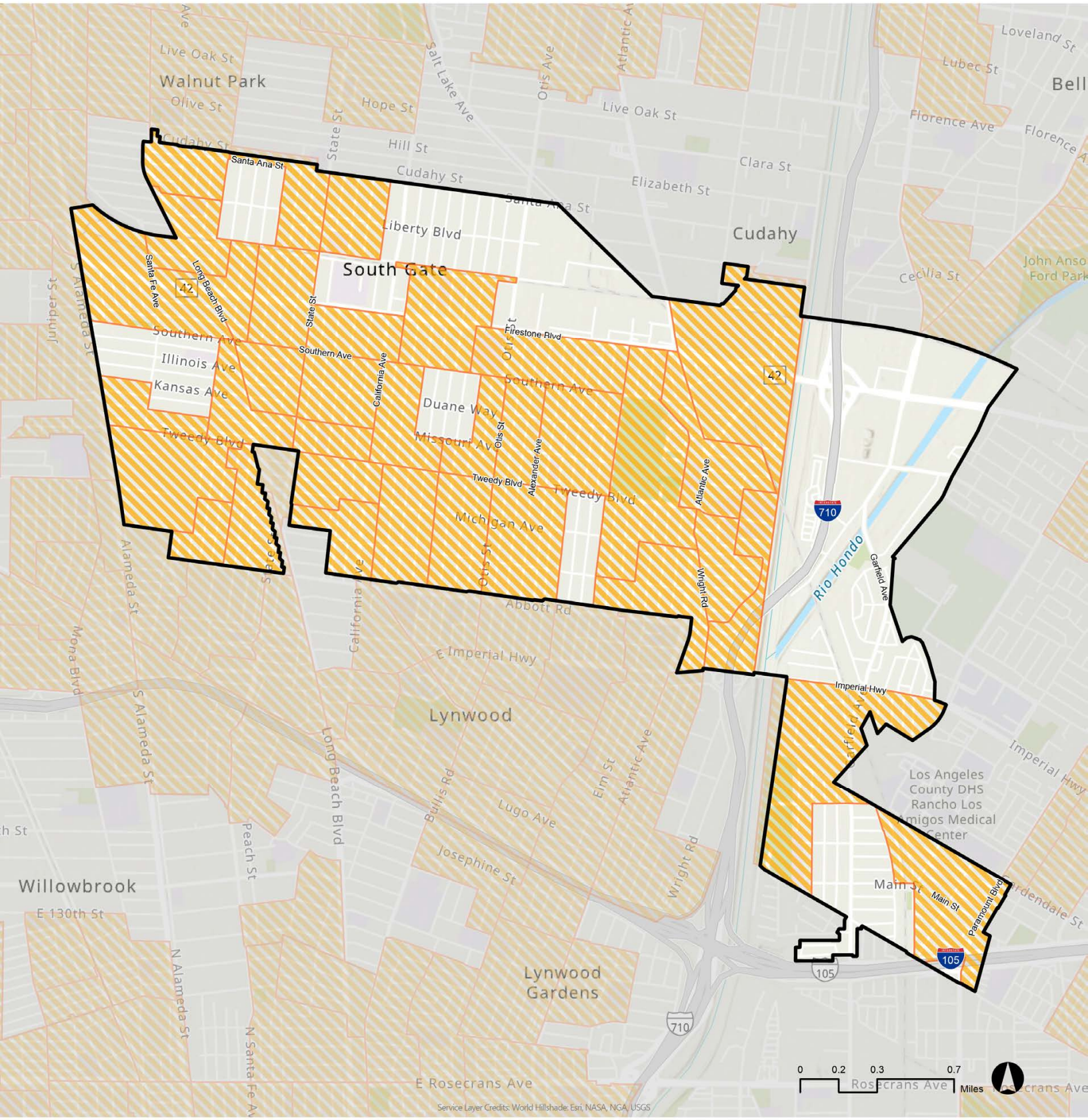
Key Entitlements in City of South Gate

City Boundary

Key Entitlements

Data Source: City of South Gate, SCAG | Data Version: Connect SoCal 2024 | Map Created: 10/11/2023

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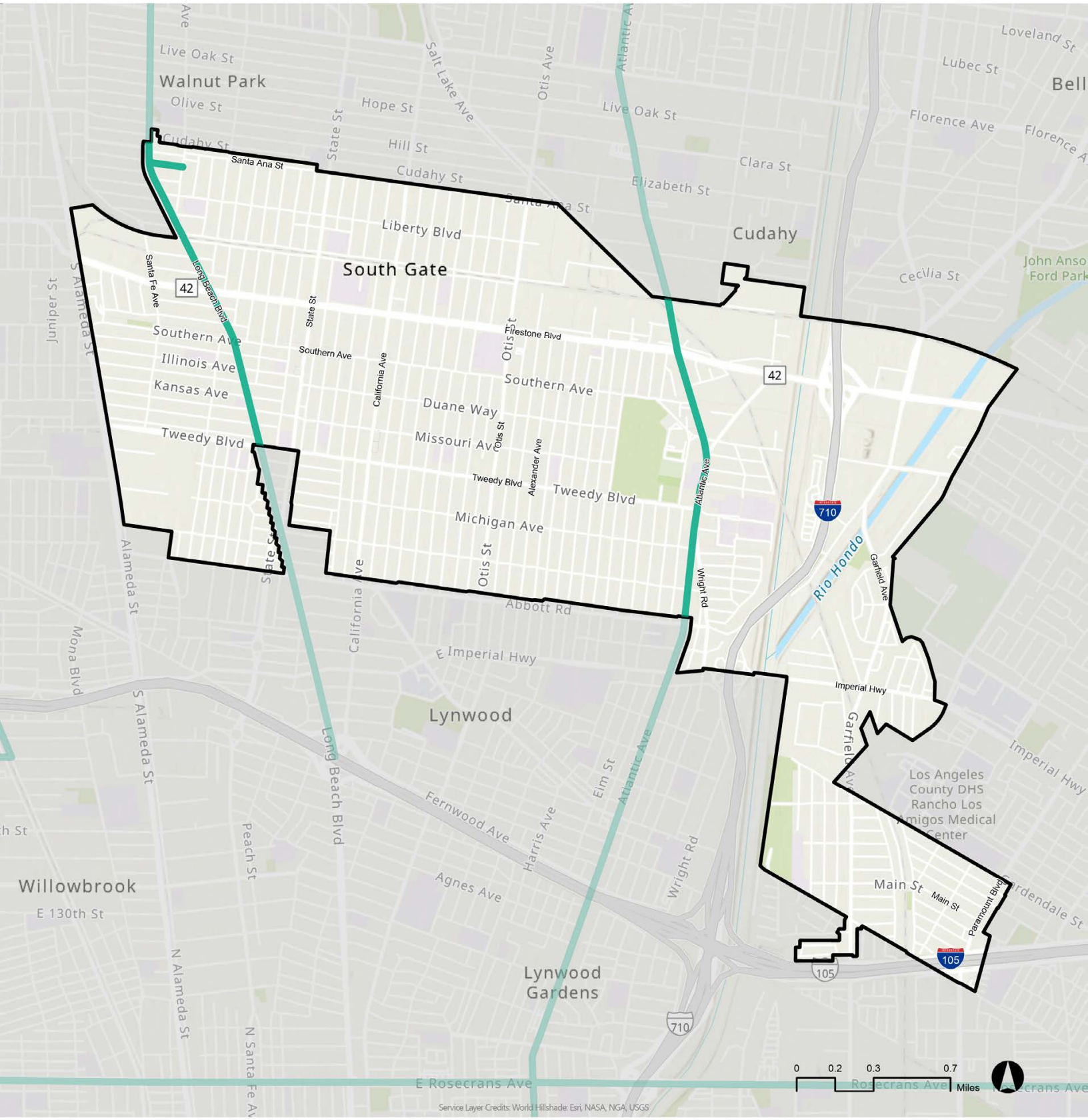
Neighborhood Mobility Areas (NMAs) in City of South Gate

City Boundary

Neighborhood Mobility Areas (NMAs)

Data Source: SCAG | Data Updated: 2023 | Map Created: 10/16/2023

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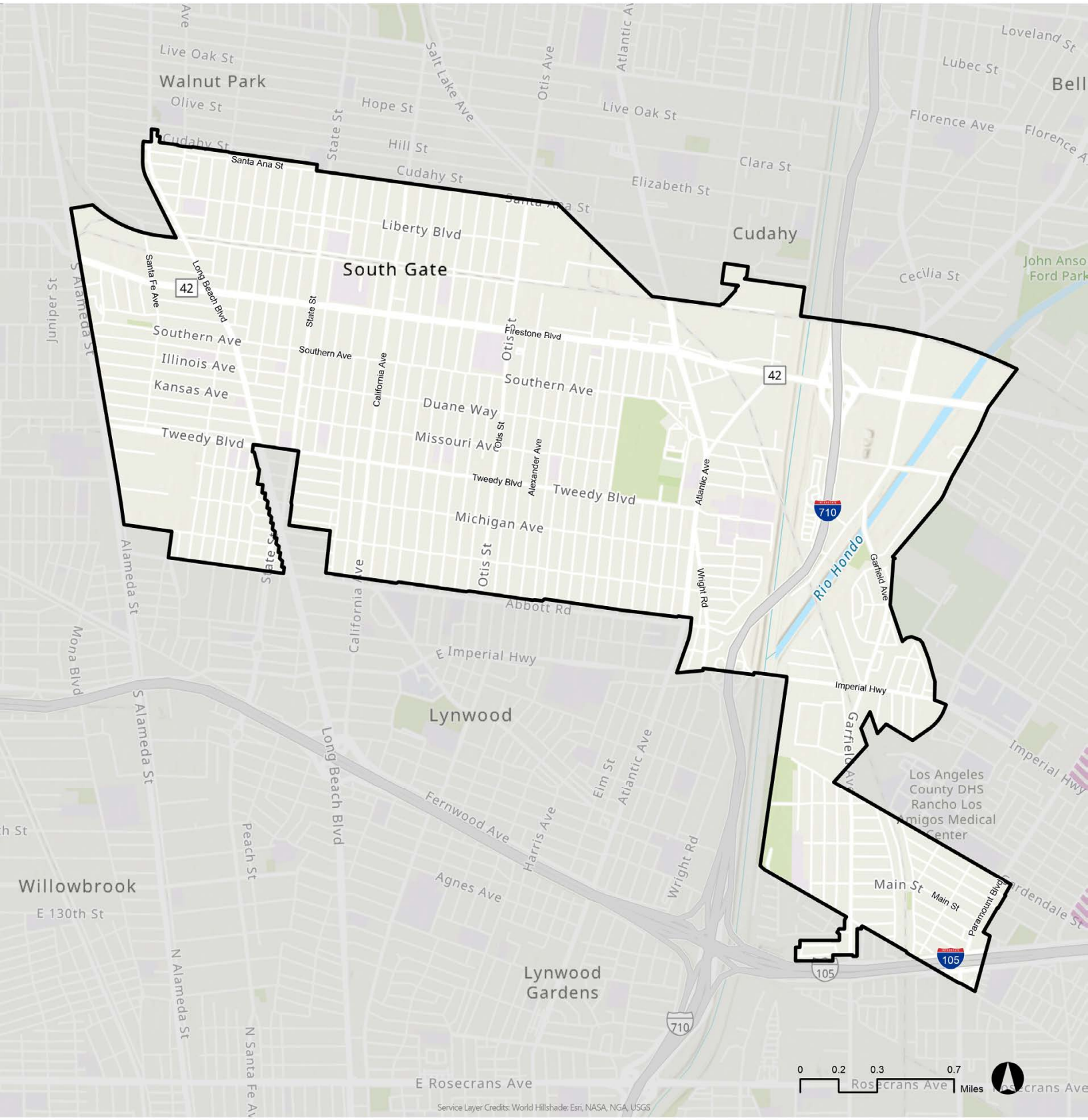
Livable Corridors in City of South Gate

City Boundary

Livable Corridors

Data Source: SCAG | Data Version: Connect SoCal 2024 Plan Year 2050 | Map Created: 9/7/2023

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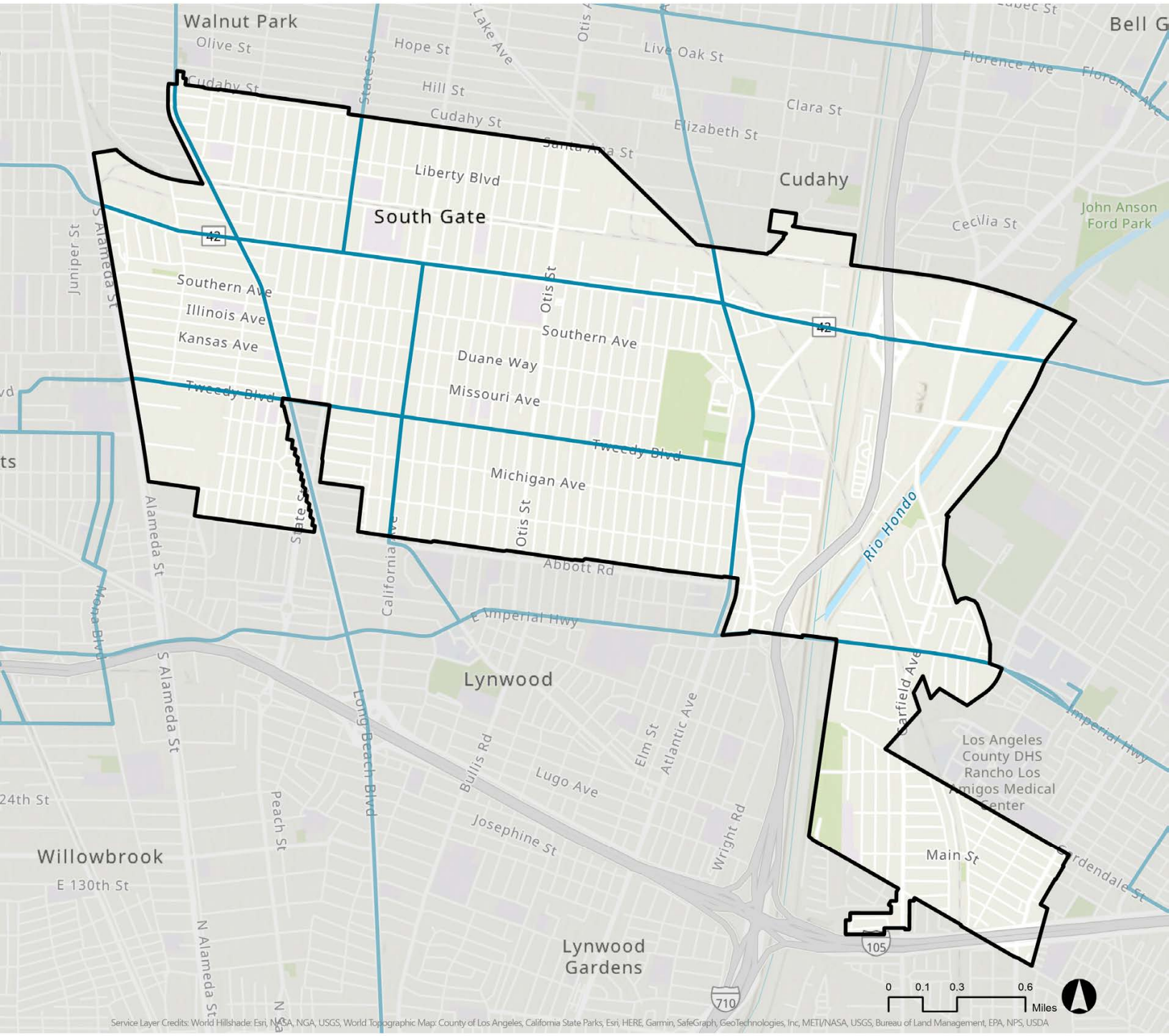


Regional Job Centers in City of South Gate

City Boundary Job Centers

Data Source: SCAG | Data version: Connect SoCal 2024 Base Year 2019 | Map Created: 9/7/2023

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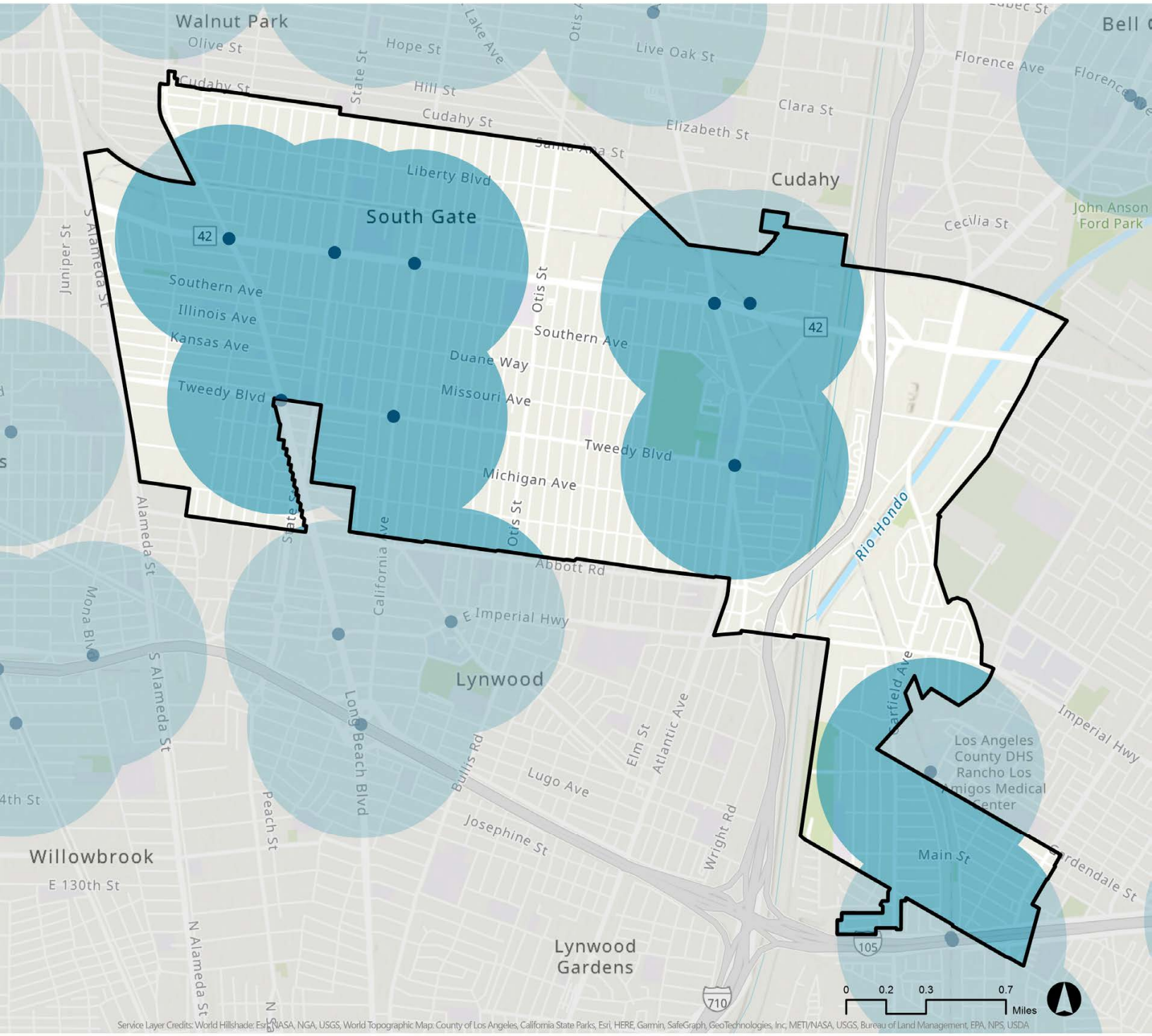
High Quality Transit Corridors in City of South Gate [Connect SoCal 2024 Plan Year 2050]

High Quality Transit Corridors (HQTCs)

Note: HQTCs included in this Data/Map Book are based on the 2050 plan year transit network of Connect SoCal 2024 and are considered draft until the completion of Connect SoCal 2024. Further explanation of the methodology for identifying HQTCs is included in the Connect SoCal 2024 Transit Technical Report Appendix. Please note that SCAG updates HQTCs with the adoption of a new RTP/SCS, once every four years. However, transit planning studies may be completed by transit agencies on a more frequent basis than the RTP/SCS is updated by SCAG. This data is intended for planning purposes only, and SCAG shall incur no responsibility or liability as to the completeness, currentness, or accuracy of this information. SCAG assumes no responsibility arising from use of this information by individuals, businesses, or other public entities. Users should consult with the appropriate transit provider(s) to obtain the latest information on transit routes, stop locations, and service intervals before making determinations regarding CEQA exemption or streamlining.

Data Source: County Transportation Commissions, SCAG | Data Version: Connect SoCal 2024 Plan Year 2050 | Map Created: 9/27/2023

Disclaimer: This map was created as a part of SCAG Data/Map Books to solicit feedback from local jurisdictions during Connect SoCal 2024 Local Data Exchange (LDX) process. SCAG shall not be responsible for user's misuse or misrepresentation of this map. For the details regarding the data sources, methodologies and contents of this map, please refer to the SCAG Data/Map Book or contact LIST@scag.ca.gov.



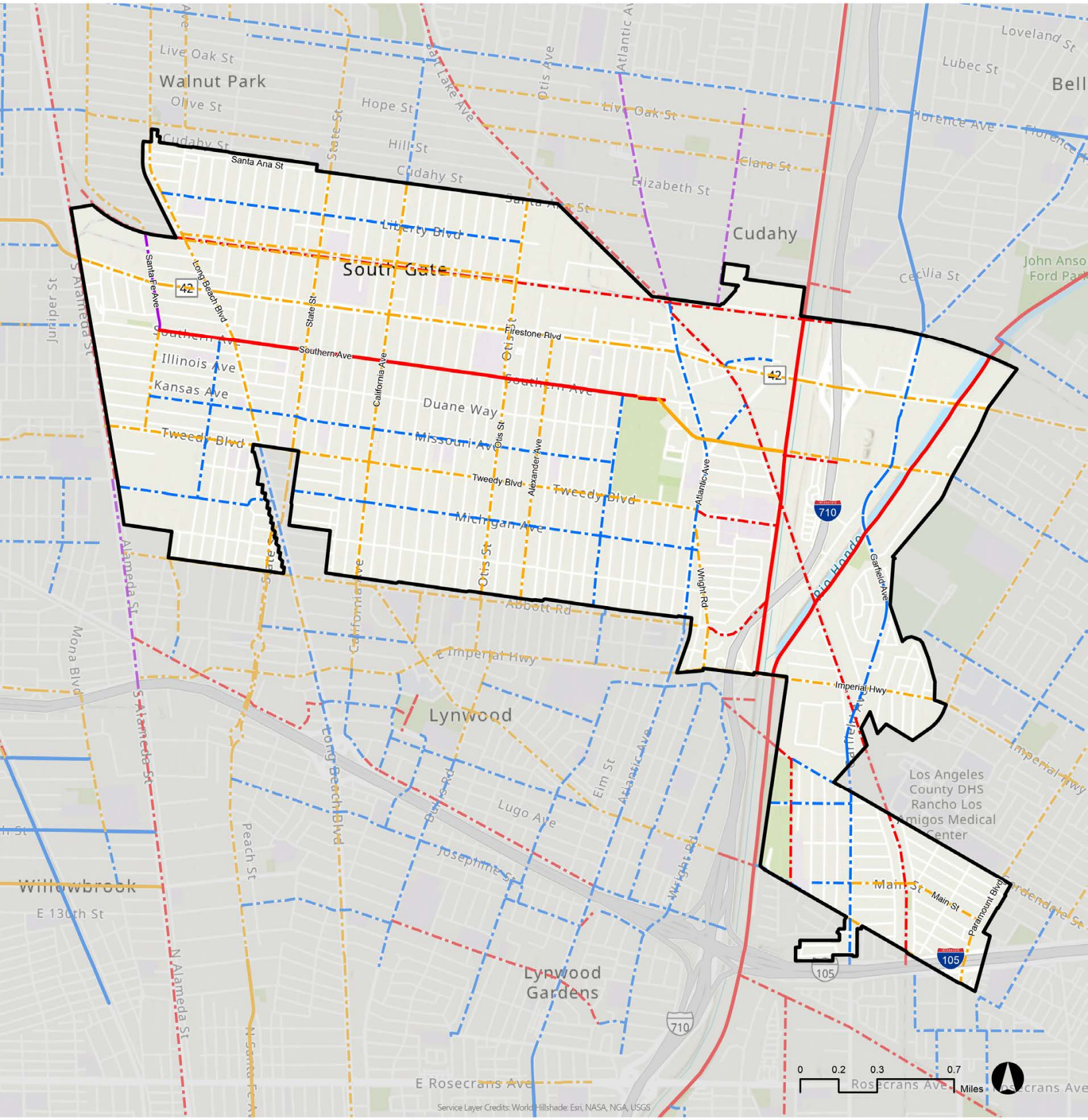
Transit Priority Areas and Major Transit Stops in City of South Gate [Connect SoCal 2024 Plan Year 2050]

● Major Transit Stops ▭ Transit Priority Areas (Areas within One-Half Mile from Major Transit Stops)

Note:The TPAs and major transit stops included in this Data/Map Book are based on the 2050 plan year transit network of Connect SoCal 2024. Please note that SCAG updates its inventory of planned transit network with the adoption of a new RTP/SCS, once every four years. However, transit planning studies may be completed by transit agencies on a more frequent basis than the RTP/SCS is updated by SCAG. This data is intended for planning purposes only, and SCAG shall incur no responsibility or liability as to the completeness, currentness, or accuracy of this information. SCAG assumes no responsibility arising from use of this information by individuals, businesses, or other public entities. Users should consult with the appropriate transit provider(s) to obtain the latest information on transit routes, stop locations, and service intervals before making determinations regarding CEQA exemption or streamlining.

Data Source: County Transportation Commissions, SCAG | Data Version: Connect SoCal 2024 Plan Year 2050 | Map Created: 9/27/2023

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Bikeways in City of South Gate (Existing and Proposed/Planned)

Existing Bikeways

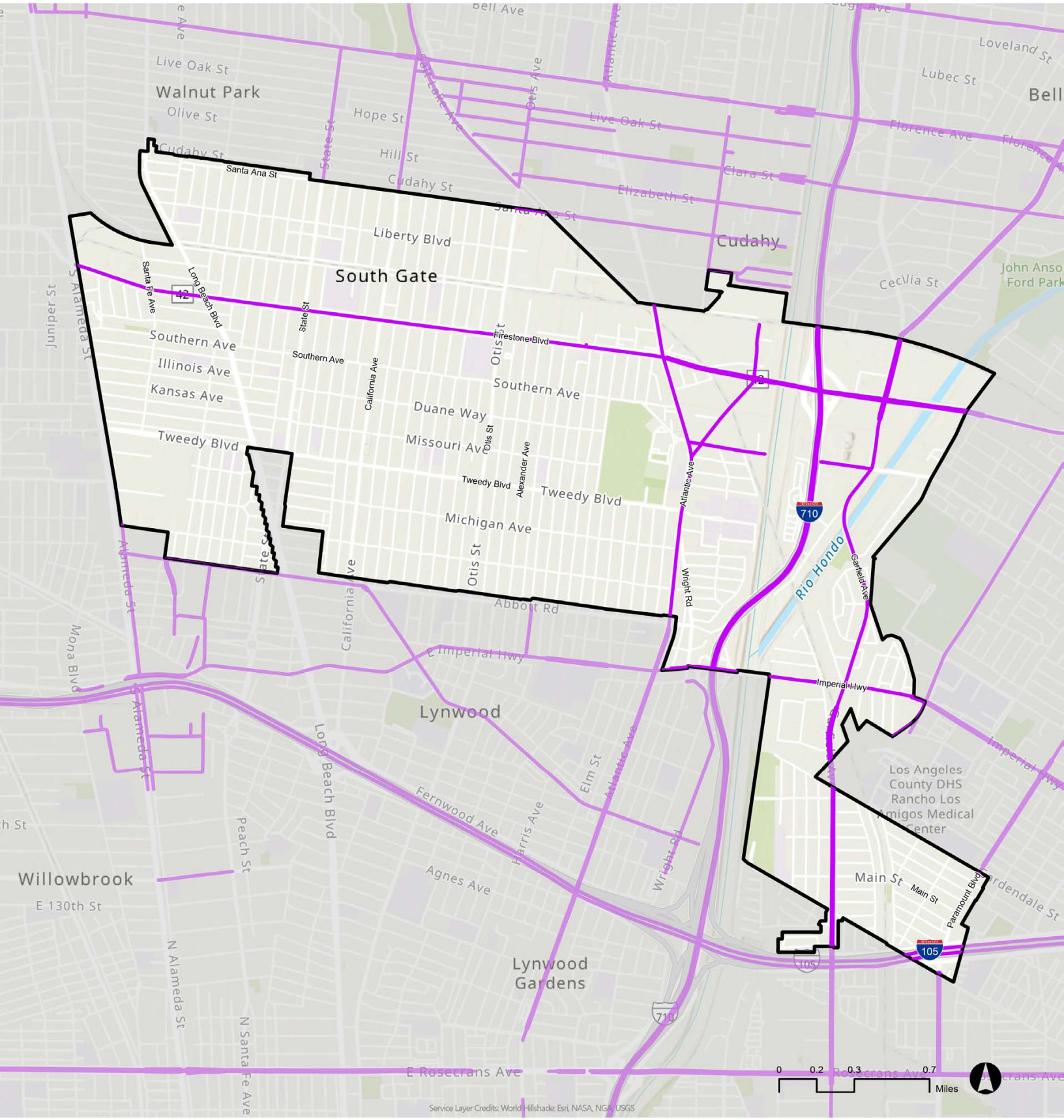
Class I Class II Class III Class IV

Proposed/Planned Bikeways

Class I Class II Class III Class IV

Data Source: Local Data Exchange (LDX), County Transportation Commissions, City of South Gate, SCAG | Data Updated: 2023 | Map Created: 9/27/2023

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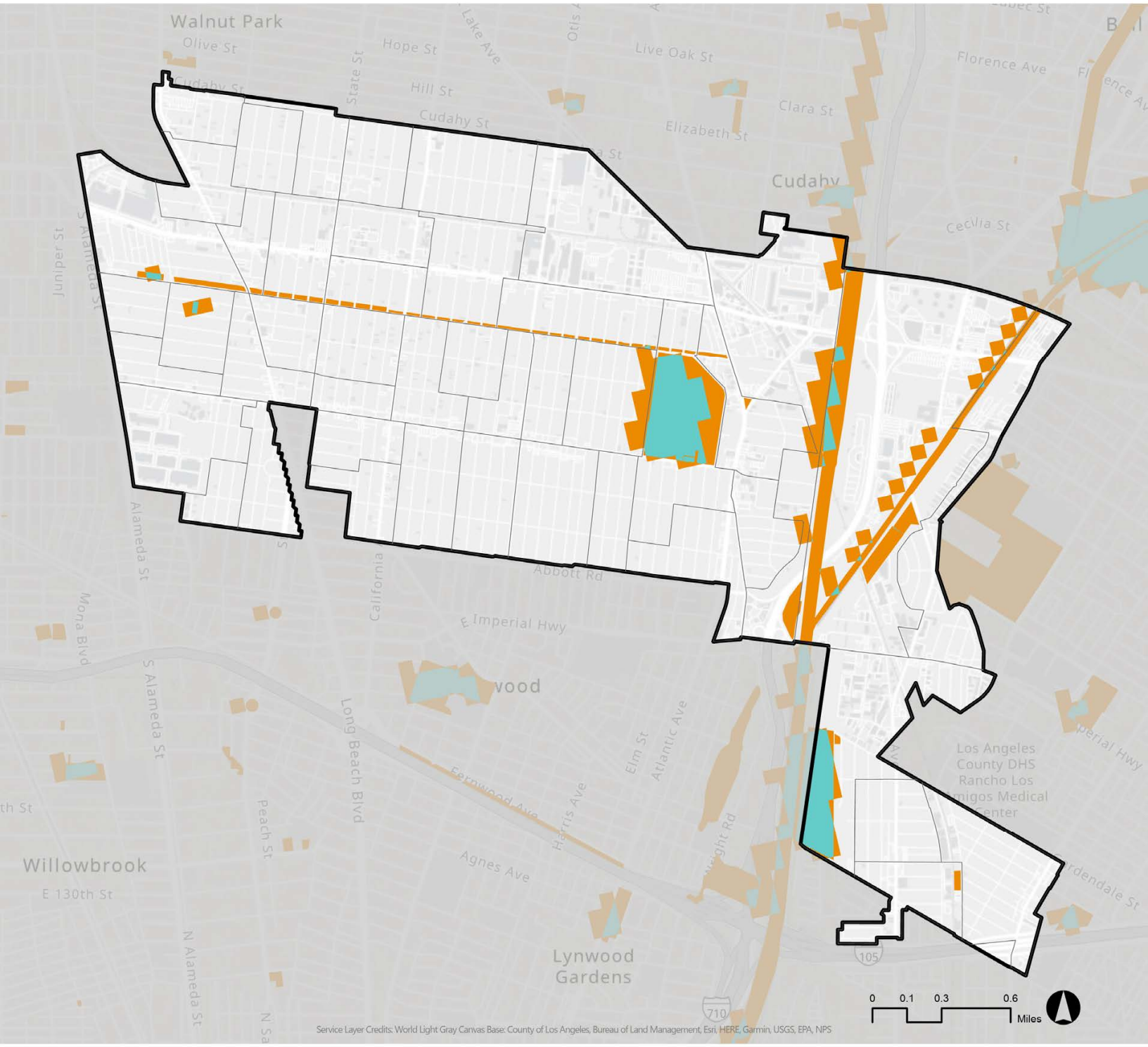
Truck Routes in City of South Gate

City Boundary

Truck Routes

Data Source: SCAG, City of South Gate | Data Updated: 2023 | Map Created: 9/7/2023

Disclaimer: This map was created as a part of SCAG Data/Map Books to solicit feedback from local jurisdictions during Connect SoCal 2024 Local Data Exchange (LDX) process. SCAG shall not be responsible for user's misuse or misrepresentation of this map. For the details regarding the data sources, methodologies and contents of this map, please refer to the SCAG Data/Map Book or contact LIST@scag.ca.gov.



Consolidated Green Region Resource Areas in City of South Gate

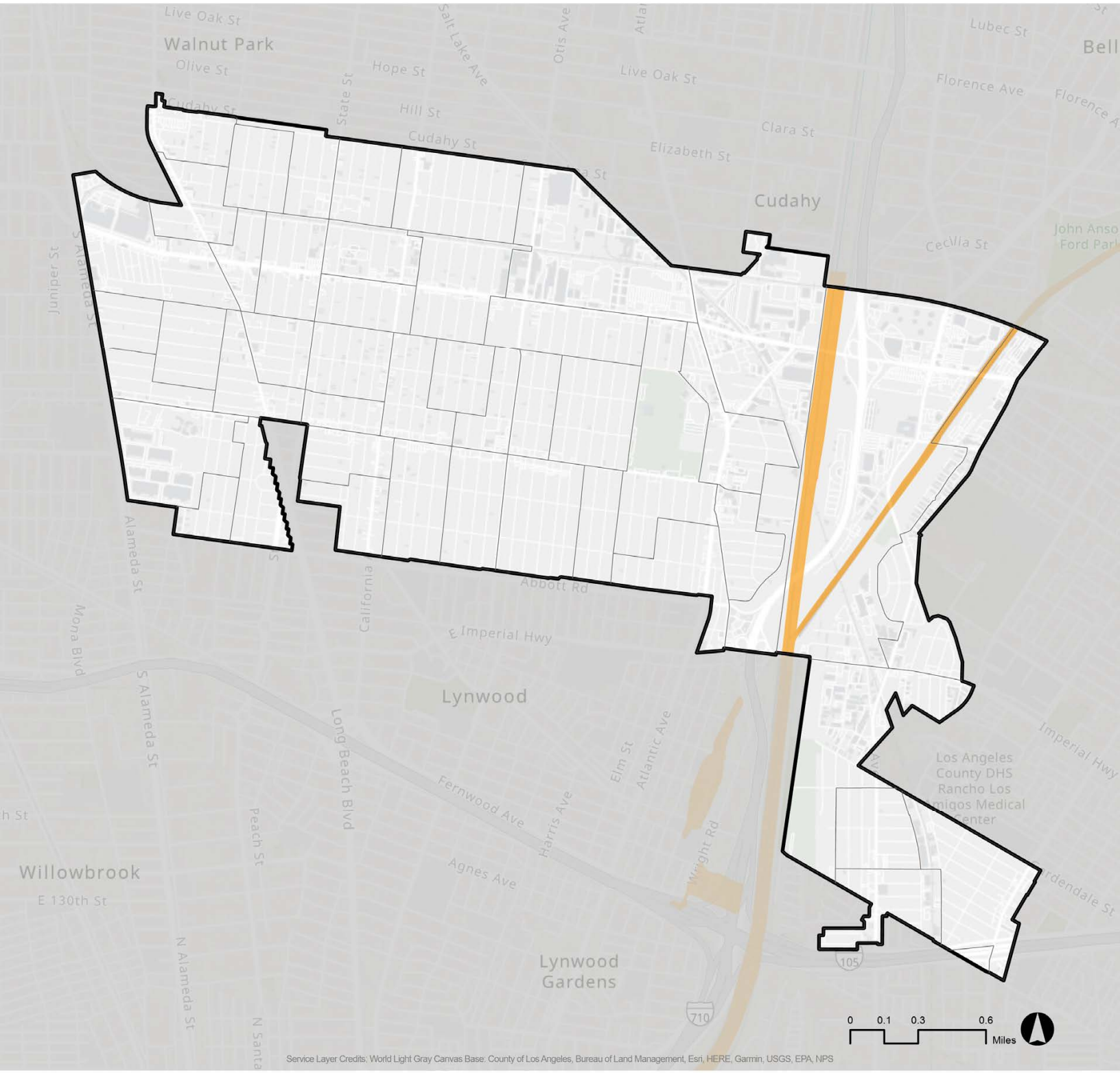
Overall Asset Value

1 2 3 4 5 6 7 8 9

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source: Federal Emergency Management (FEMA) Effective: 100-Year Floodplains, 2017, FEMA; Coastal Storm Modeling System (CoSMoS) for Southern California, v3.0, Phase 2, 2018, USGS; Fire Hazard Severity Zones Local Responsibility Areas Maps, 2008, CAL FIRE; Fire Hazard Severity Zones State Responsibility Areas Maps, 2007, CAL FIRE; Save Our Agricultural Resources (SOAR), 2017, County of Ventura; California Conservation Easement Database (CCED), 2021, Multiple sources; California Protected Areas Database (CPAD), 2021, Multiple sources; National Wetlands Inventory, 2020, US Fish and Wildlife Services; 2015 Areas of Conservation Emphasis (ACEIIv2), 2015, CA Department of Fish and Wildlife; South Coast Missing Linkages (SCML) Wildlife Corridors, 2018, Conservation Biology Institute; California Essential Habitat Connectivity Project, 2010, CA Department of Fish and Wildlife; Conservation Plan Boundaries; American Indian Reservations / Federally Recognized Tribal Entities, 2021, CalOES; USA Department of Defense Lands, 2018, US Department of Defense; California Important Farmland, Farmland Mapping & Monitoring Program (FMMP), 2018, CA Department of Conservation
Data Updated: 2021 | Map Created: 9/6/2023

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Resilience Multi-Benefit Assets in City of South Gate

Resilience Asset Value

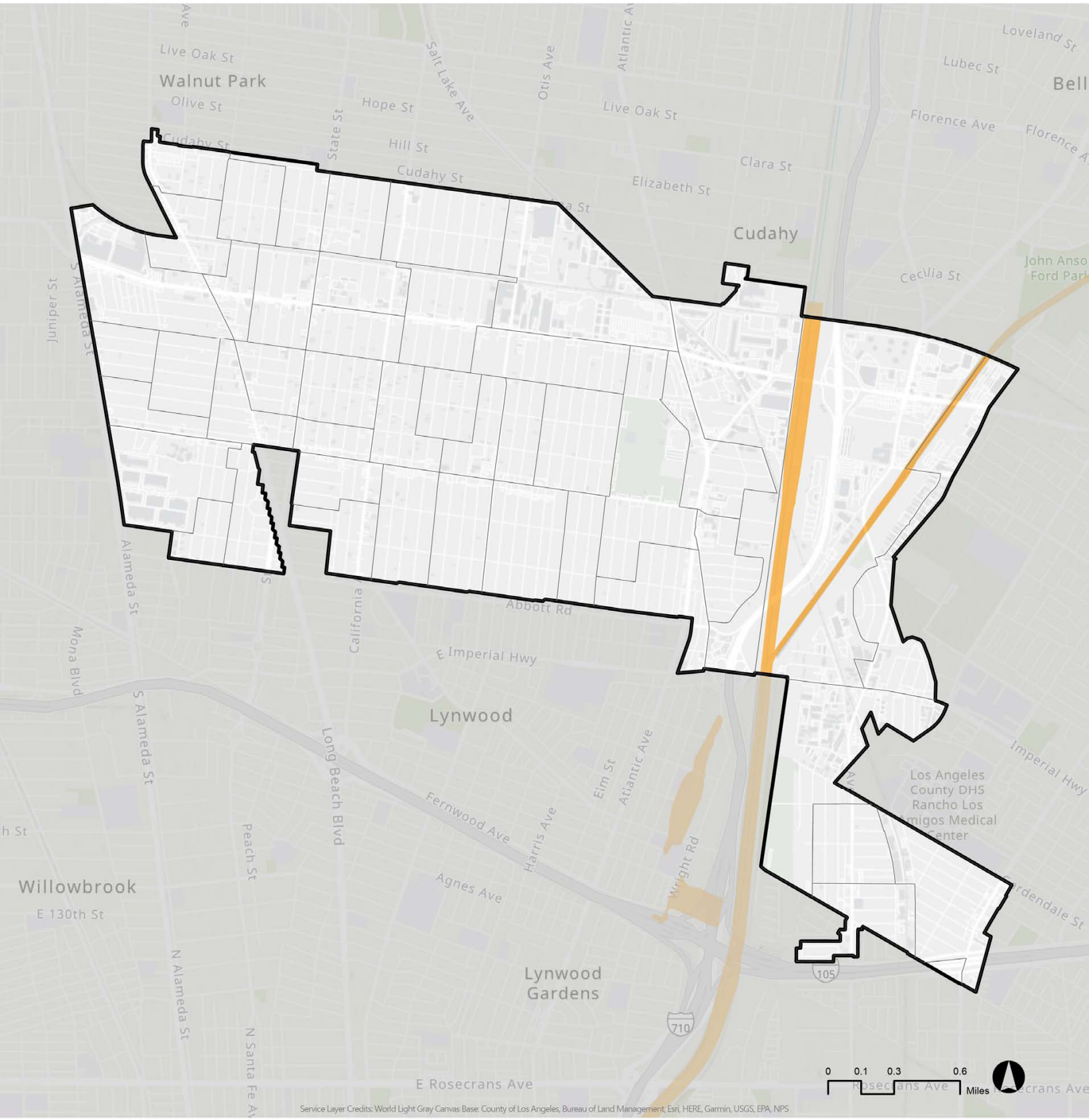
1 2 3 4

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source:Federal Emergency Management (FEMA) Digital Flood Insurance Rate Map (DFIRM); Coastal Storm Modeling System (CoSMoS for Southern California (v3.0, Phase 2); Fire Hazard Severity Zones Local Responsibility Areas Maps, 2008, CAL FIRE; Fire Hazard Severity Zones State Responsibility Areas Maps, 2007, CAL FIRE; and Wildland Urban Interface & Intermix, 2020, CAL FIRE

Data Updated: 2021 | Map Created: 9/7/2023

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Flood Hazard Areas in City of South Gate

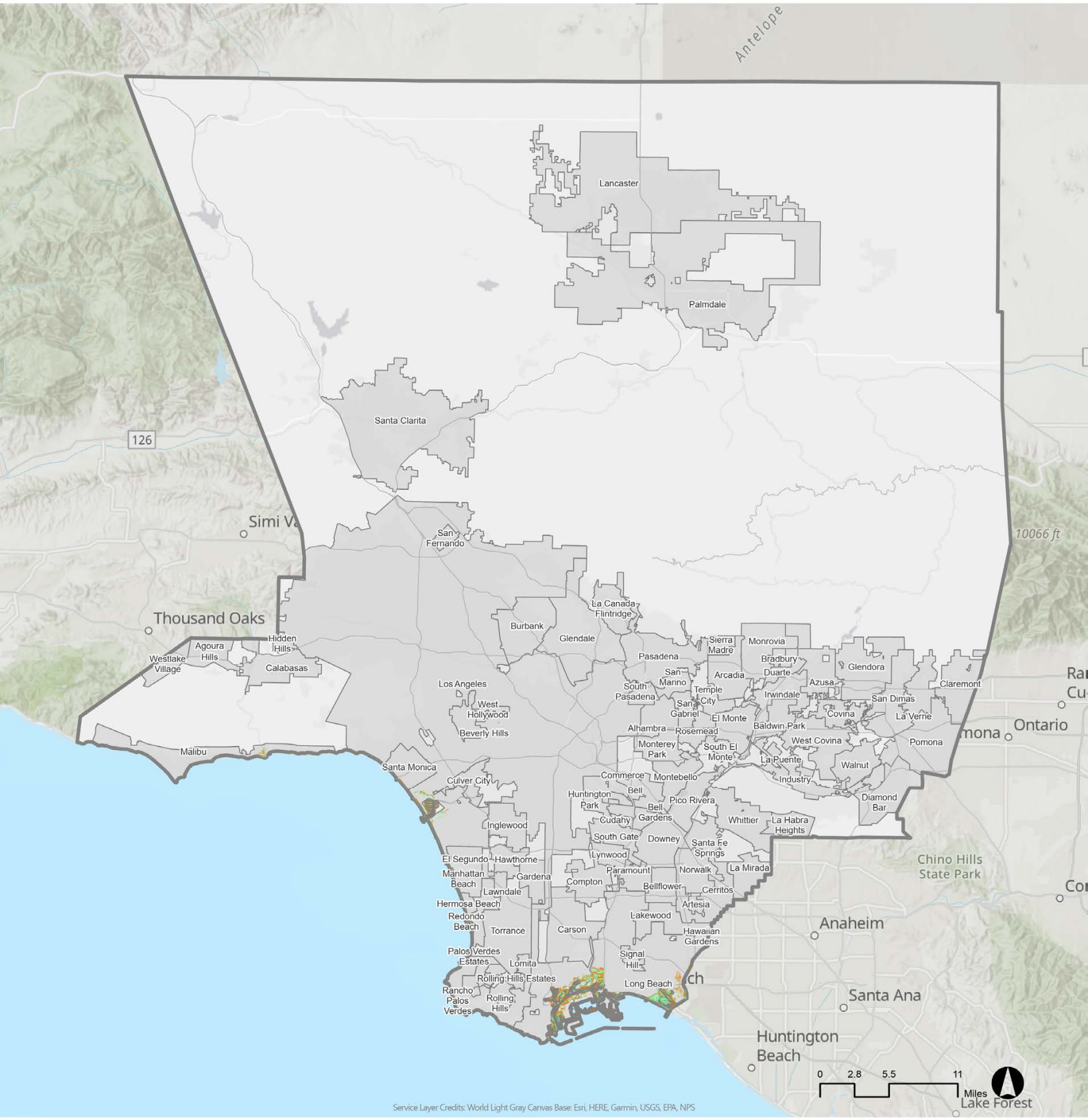
100 Year Floodplain

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source: Federal Emergency Management (FEMA) Digital Flood Insurance Rate Map (DFIRM)

Data Updated: 2021 | Map Created: 9/7/2023

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Coastal Inundation (Sea Level Rise) in Los Angeles County

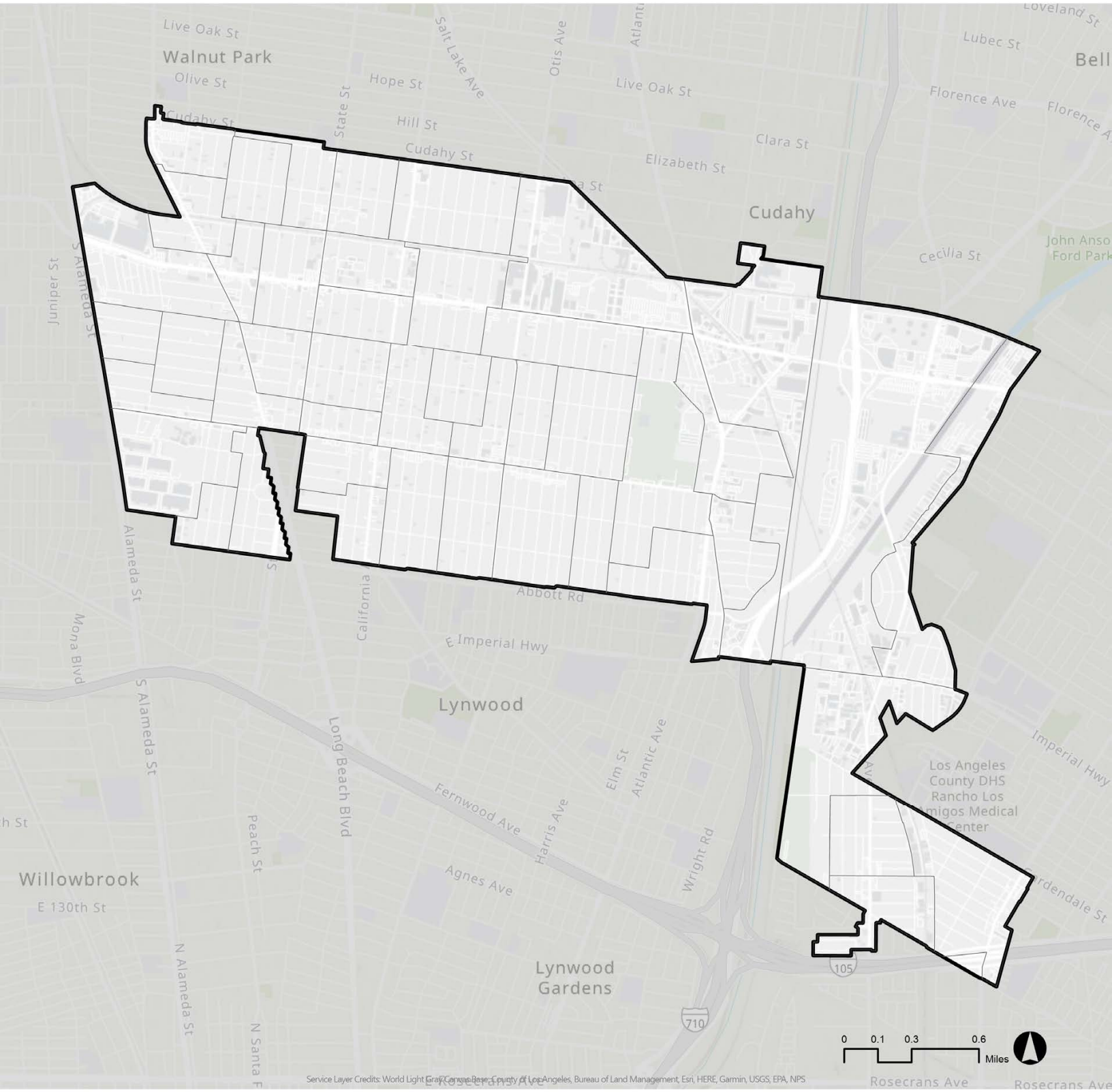
Sea Level Rise 0 - 0.5m

Sea Level Rise 0.5 - 1.0m

Data Source: Coastal Storm Modeling System (CoSMoS for Southern California (v3.0, Phase 2)

Data Updated: 2021 | Map Created: 9/7/2023

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Wildfire Risk in City of South Gate

Wildland Urban Interface

- Interface
- Intermix

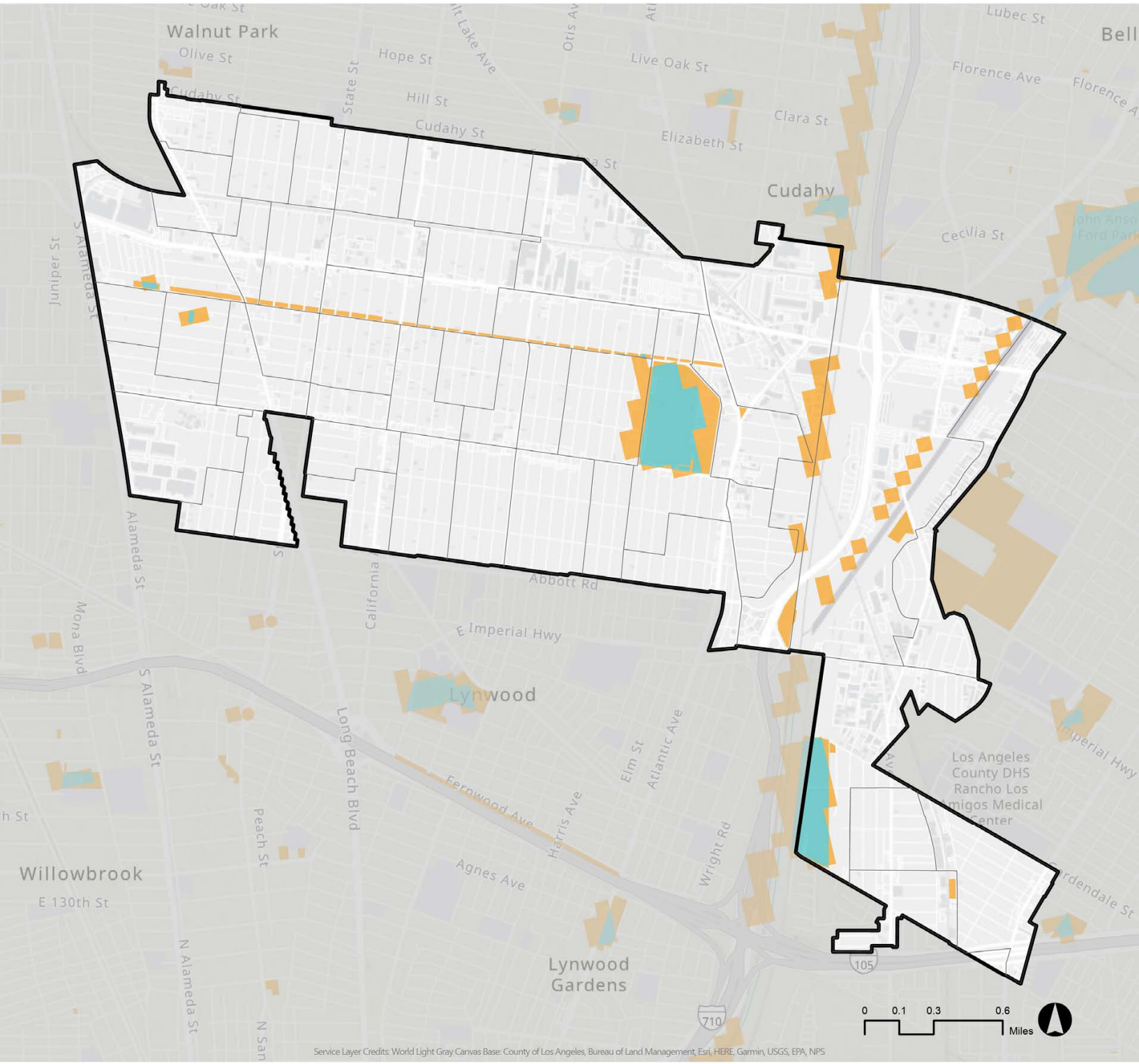
CALFIRE Fire Hazard Severity Zones

- High
- Very High

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source: Fire Hazard Severity Zones Local Responsibility Areas Maps, 2008, CAL FIRE; Fire Hazard Severity Zones State Responsibility Areas Maps, 2007, CAL FIRE; and Wildland Urban Interface, 2020, CAL FIRE
Data Updated: 2021 | Map Created: 9/7/2023

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Open Space/Habitat Multi-Benefit Assets in City of South Gate

Open Space/Habitat Asset Value

1 2 3 4 5 6

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source: Save Our Agricultural Resources (SOAR), 2017, County of Ventura; California Conservation Easement Database (CCED), 2021, Multiple sources; California Protected Areas Database (CPAD), 2021, Multiple sources; National Wetlands Inventory, 2020, US Fish and Wildlife Services; South Coast Missing Linkages (SCML) Wildlife Corridors, 2018, Conservation Biology Institute; 2015 Areas of Conservation Emphasis (ACEIIv2), 2015, CA Department of Fish and Wildlife
Data Updated: 2021 | Map Created: 9/7/2023

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Open Space and Parks in City of South Gate

Protected open space and parks from the following databases:

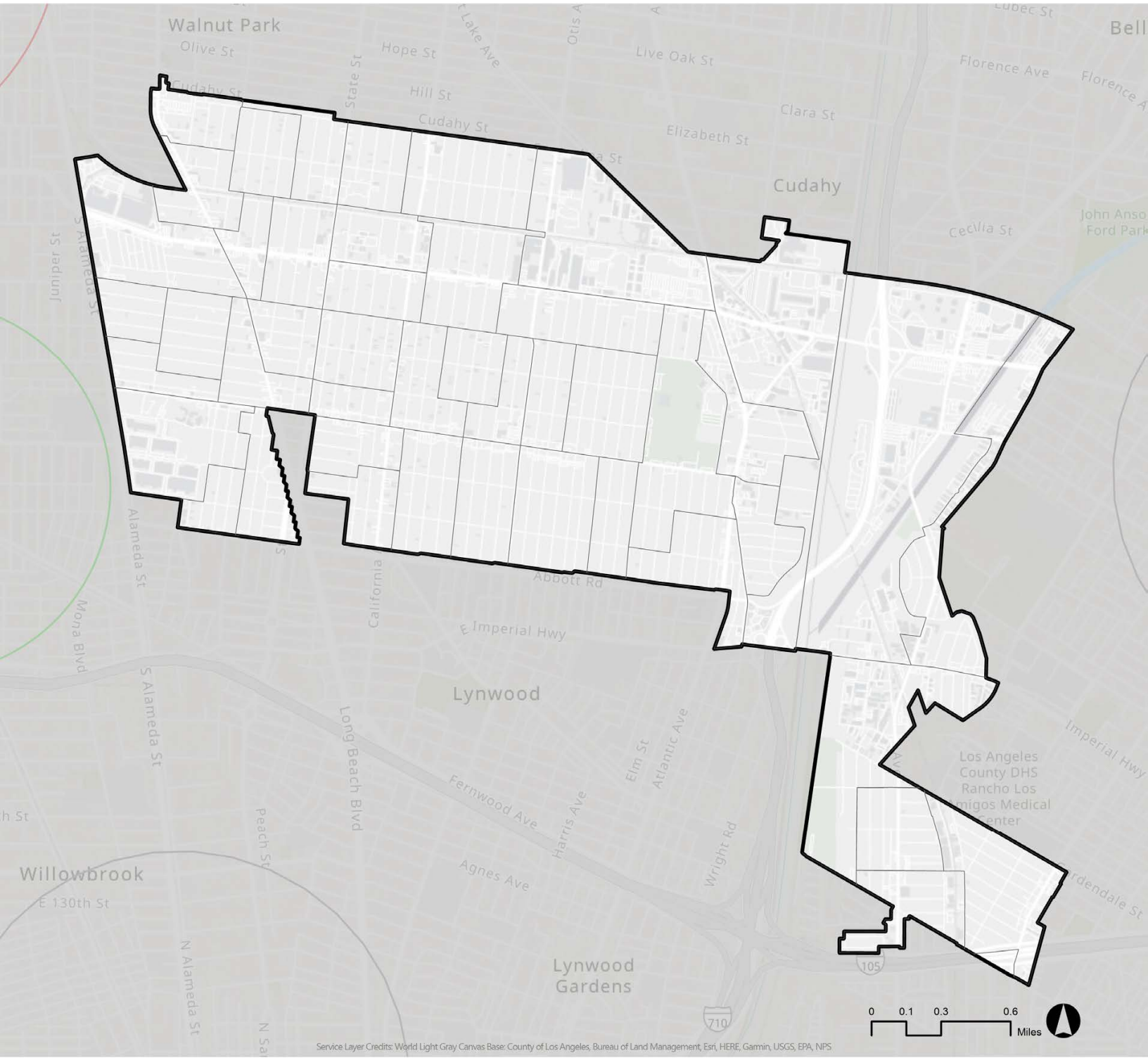
Save Our Agricultural Resources | California Conservation Easement Database | California Protected Areas Database

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source: Save Our Agricultural Resources (SOAR), 2017, County of Ventura; California Conservation Easement Database (CCED), 2021, Multiple sources; and California Protected Areas Database (CPAD), 2021, Multiple sources

Data Updated: 2021 | Map Created: 9/7/2023

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Endangered Species/Plants in City of South Gate

Plant (80m)	Animal (80m)	Terrestrial Comm. (80m)	Aquatic Comm. (80m)	Multiple (80m)
Plant (specific)	Animal (specific)	Terrestrial Comm. (specific)	Aquatic Comm. (specific)	Multiple (specific)
Plant (non-specific)	Animal (non-specific)	Terrestrial Comm. (non-specific)	Aquatic Comm. (non-specific)	Multiple (non-specific)
Plant (circular)	Animal (circular)	Terrestrial Comm. (circular)	Aquatic Comm. (circular)	Multiple (circular)

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

The California Natural Diversity Database (CNDDB) is a library of the location and condition of species of rare and sensitive plants, animals, and natural communities in California. The dataset shown on the map is based on the combination of the three data fields in CNDDB; element type, accuracy and element occurrence count.

Data Source: California Natural Diversity Database (CNDDB), 2017, CA Department of Fish and Wildlife
Data Updated: 2021 | Map Created: 9/7/2023

Disclaimer: This map was created as a part of SCAG Data/Map Books to solicit feedback from local jurisdictions during Connect SoCal 2024 Local Data Exchange (LDX) process. SCAG shall not be responsible for user's misuse or misrepresentation of this map. For the details regarding the data sources, methodologies and contents of this map, please refer to the SCAG Data/Map Book or contact LIST@scag.ca.gov.



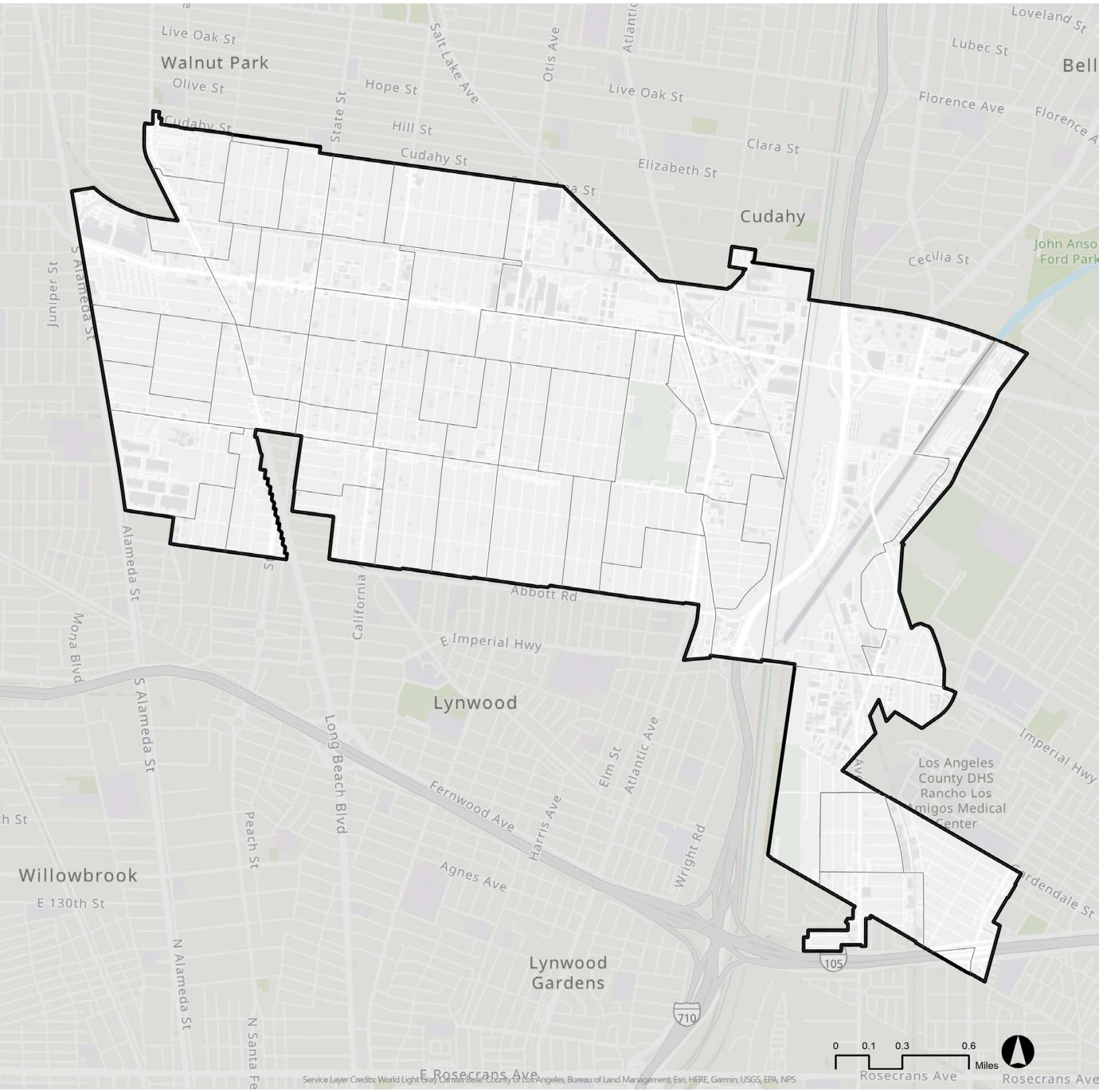
Sensitive Habitat Areas in City of South Gate

Wetlands | Habitat Connectivity Areas | Connect SoCal 2020 Habitat Connectivity

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source:National Wetlands Inventory, 2020, US Fish and Wildlife Services; South Coast Missing Linkages (SCML) Wildlife Corridors, 2018, Conservation Biology Institute; 2015 Areas of Conservation Emphasis (ACEIIv2), 2015, CA Department of Fish and Wildlife
Data Updated: 2021 | Map Created: 9/7/2023

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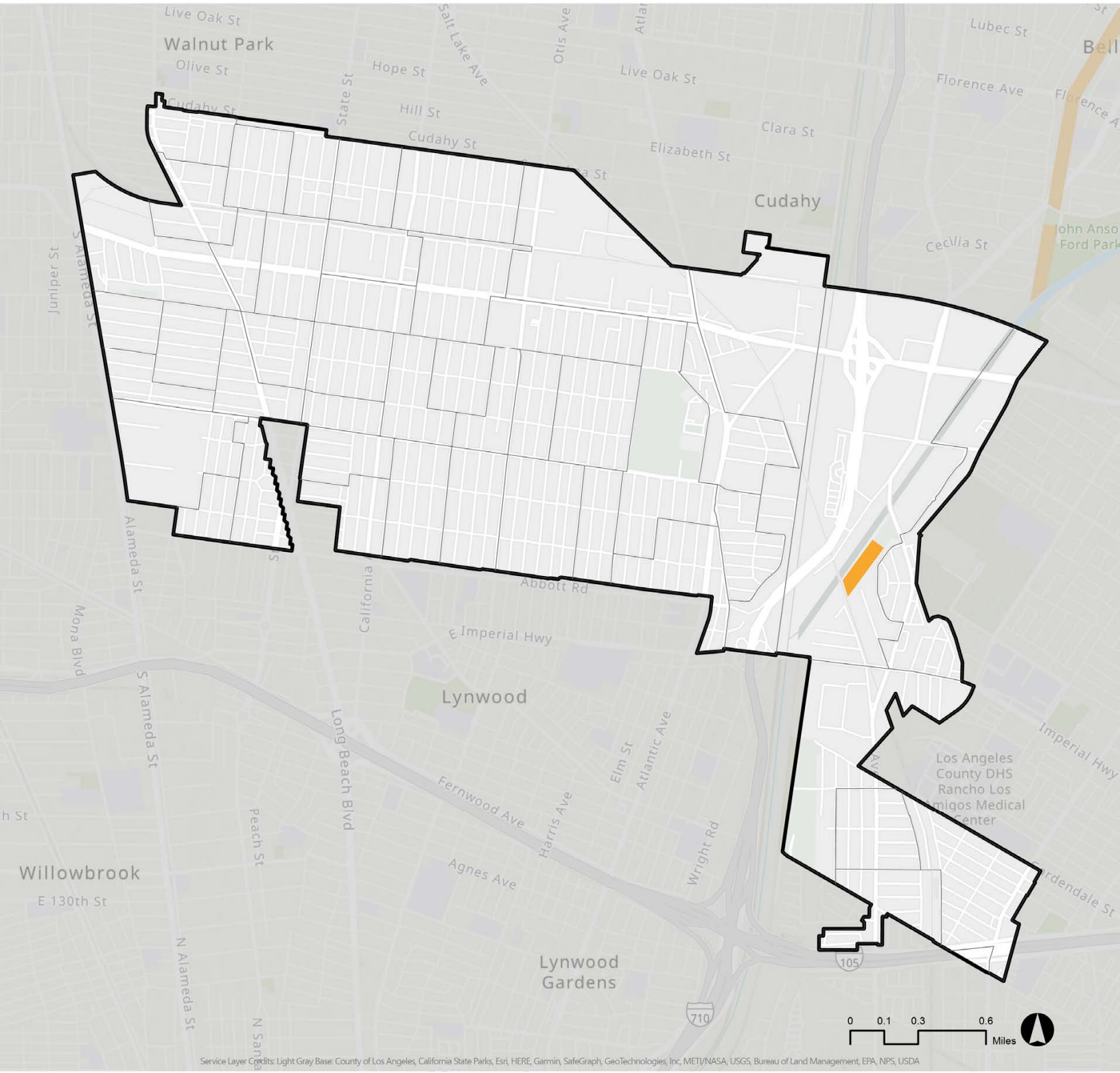
Regional Conservation Plans in City of South Gate

- Natural Community and Habitat Conservation Plan (NCCP)
- Regional NCCP
- Subarea of Regional NCCP
- Discrete linear/energy NCCP

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source: Conservation Plan Boundaries, Habitat Conservation Plans (HCPs) and Natural Community Conservation Plans (NCCPs), 2021, CA Department of Fish and Wildlife
Data Updated: 2021 | Map Created: 9/6/2023

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Administrative/Working Lands Multi-Benefit Assets in City of South Gate

Administrative/Working Lands Asset Value

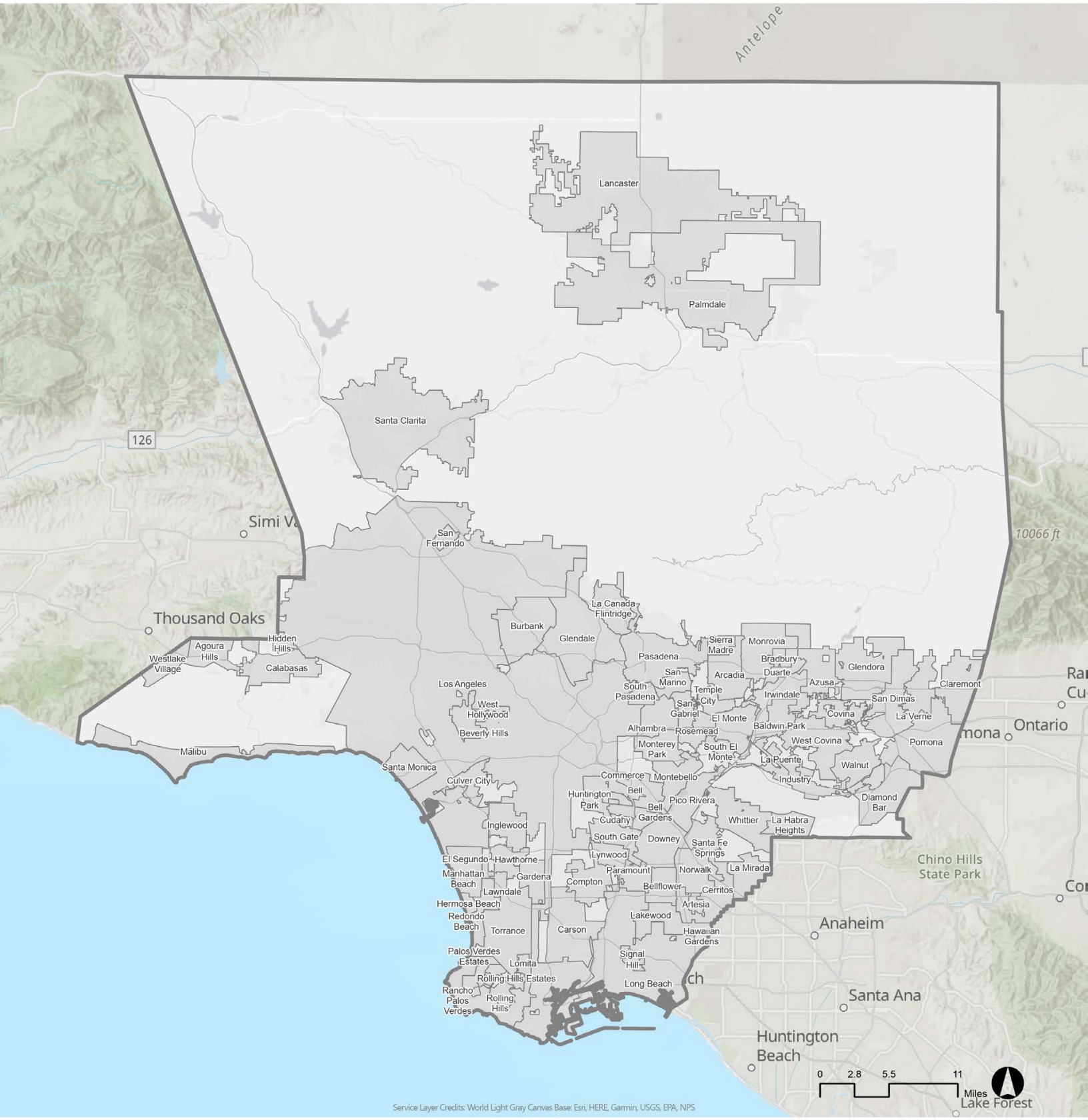
1 2 3

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source: American Indian Reservations / Federally Recognized Tribal Entities, 2021, CalOES; USA Department of Defense Lands, 2018, US Department of Defense; and California Important Farmland, Farmland Mapping & Monitoring Program (FMMP), 2018

Data Updated: 2021 | Map Created: 9/6/2023

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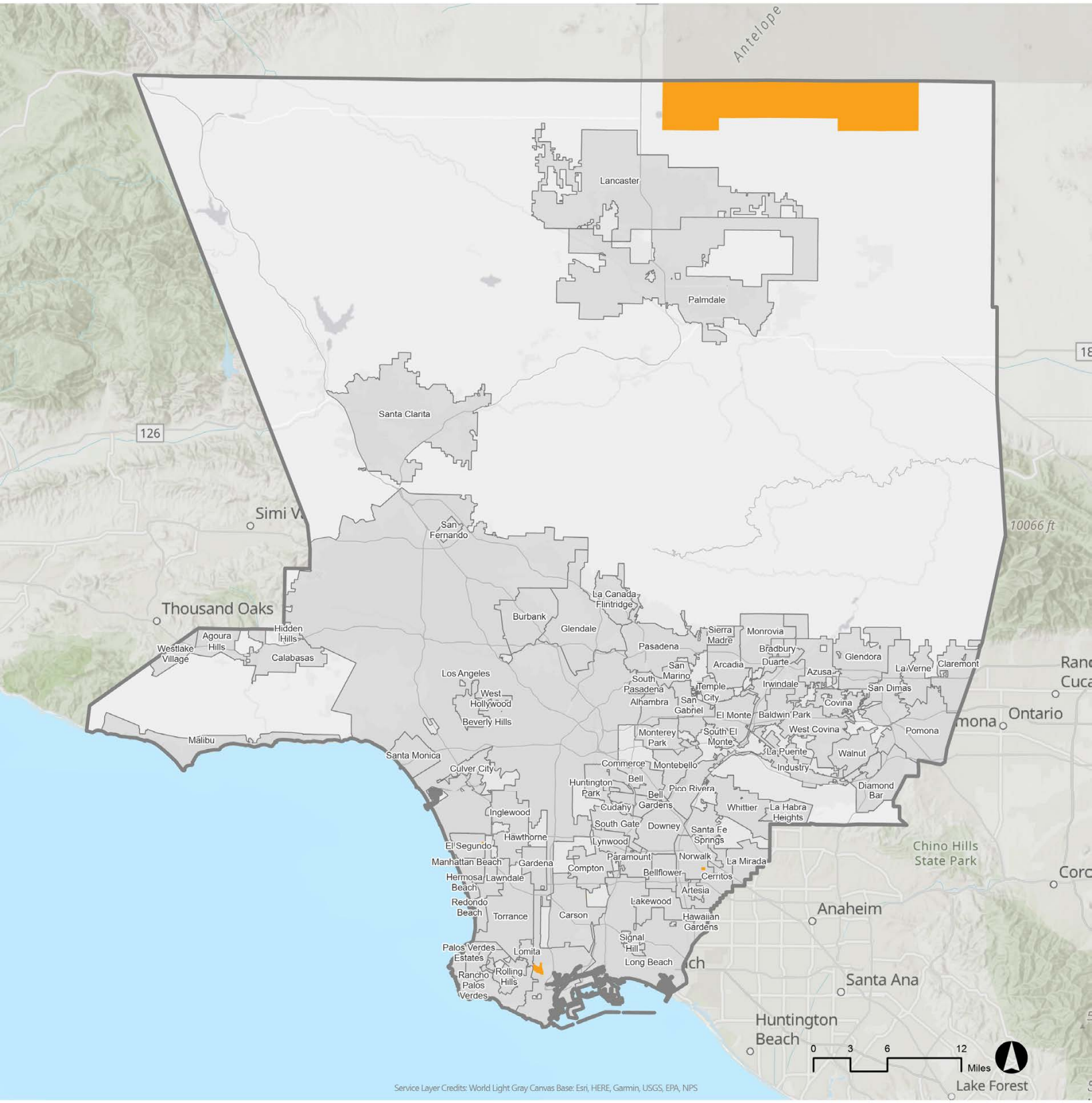
Tribal Lands in Los Angeles County

American Indian Reservation; Federally Recognized Tribal Entity

Data Source: American Indian Reservations / Federally Recognized Tribal Entities, 2021, CalOES

Data Updated: 2021 | Map Created: 9/7/2023

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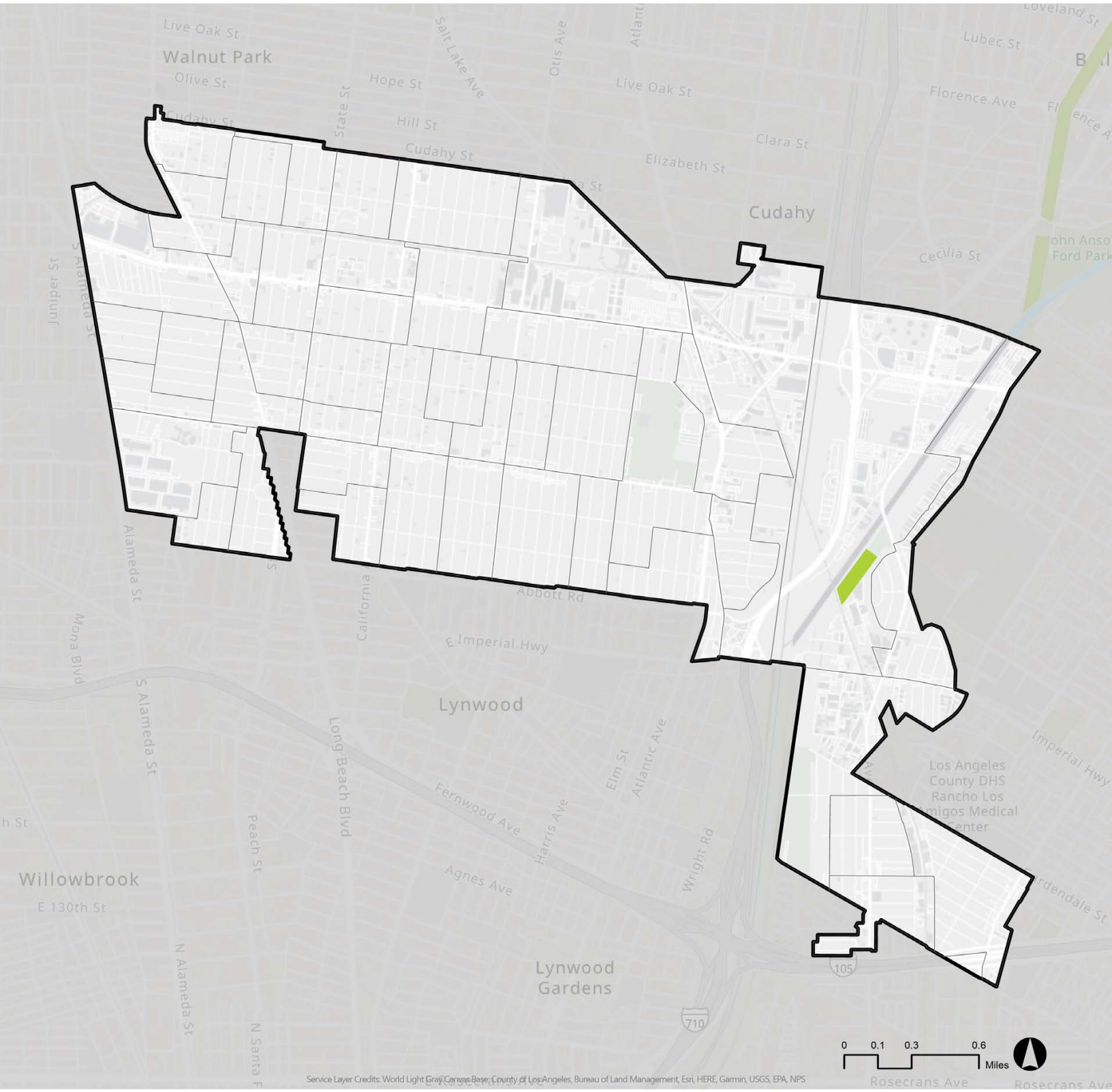


Military Installations in Los Angeles County

Military Installation

Data Source: USA Department of Defense Lands, 2018, US Department of Defense
Data Updated: 2021 | Map Created: 9/7/2023

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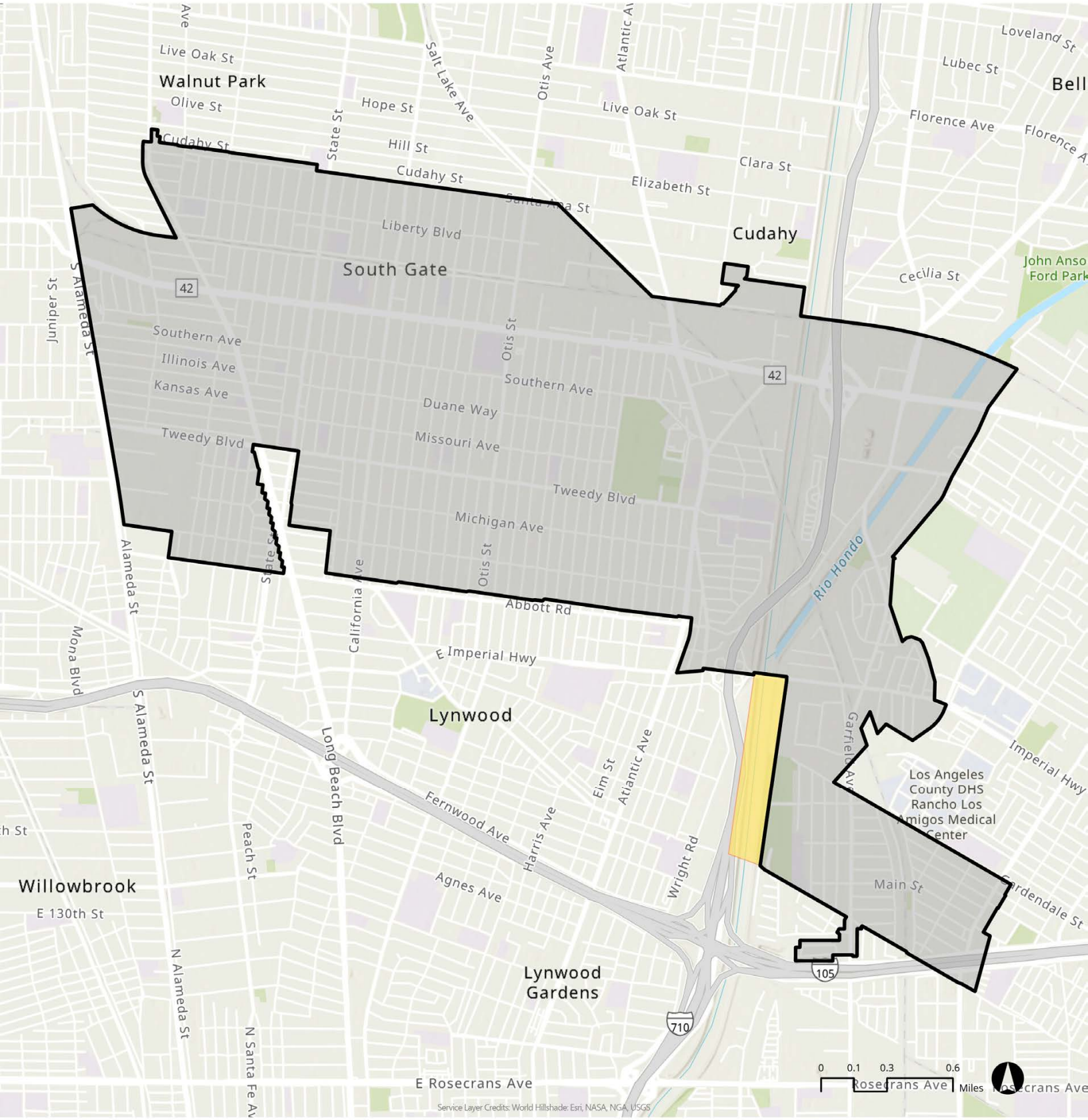
Farmland in City of South Gate

- Farmland of Local Importance
- Farmland of Statewide Importance
- Grazing Land
- Prime Farmland
- Unique Farmland

* Transportation Analysis Zones (TAZ) Tier2 boundaries are shown in the map.

Data Source: California Important Farmland, Farmland Mapping & Monitoring Program (FMMP), 2018, CA Department of Conservation
Data Updated: 2021 | Map Created: 9/7/2023

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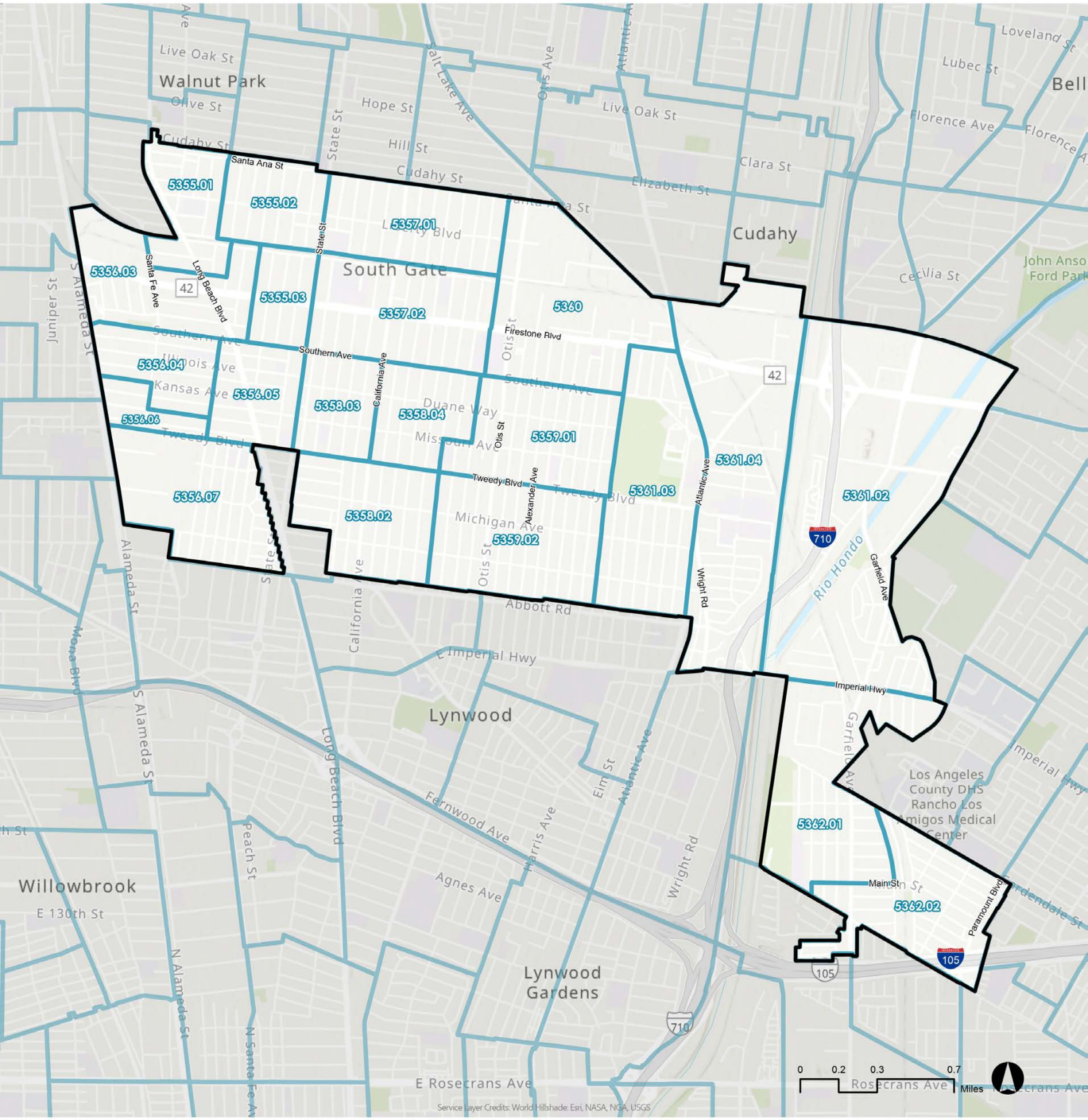


2019 City Boundary and Sphere of Influence for City of South Gate

City Boundary Sphere of Influence

Data Source: Los Angeles County LAFCO | Data Version: 2019 | Map Created: 9/6/2023

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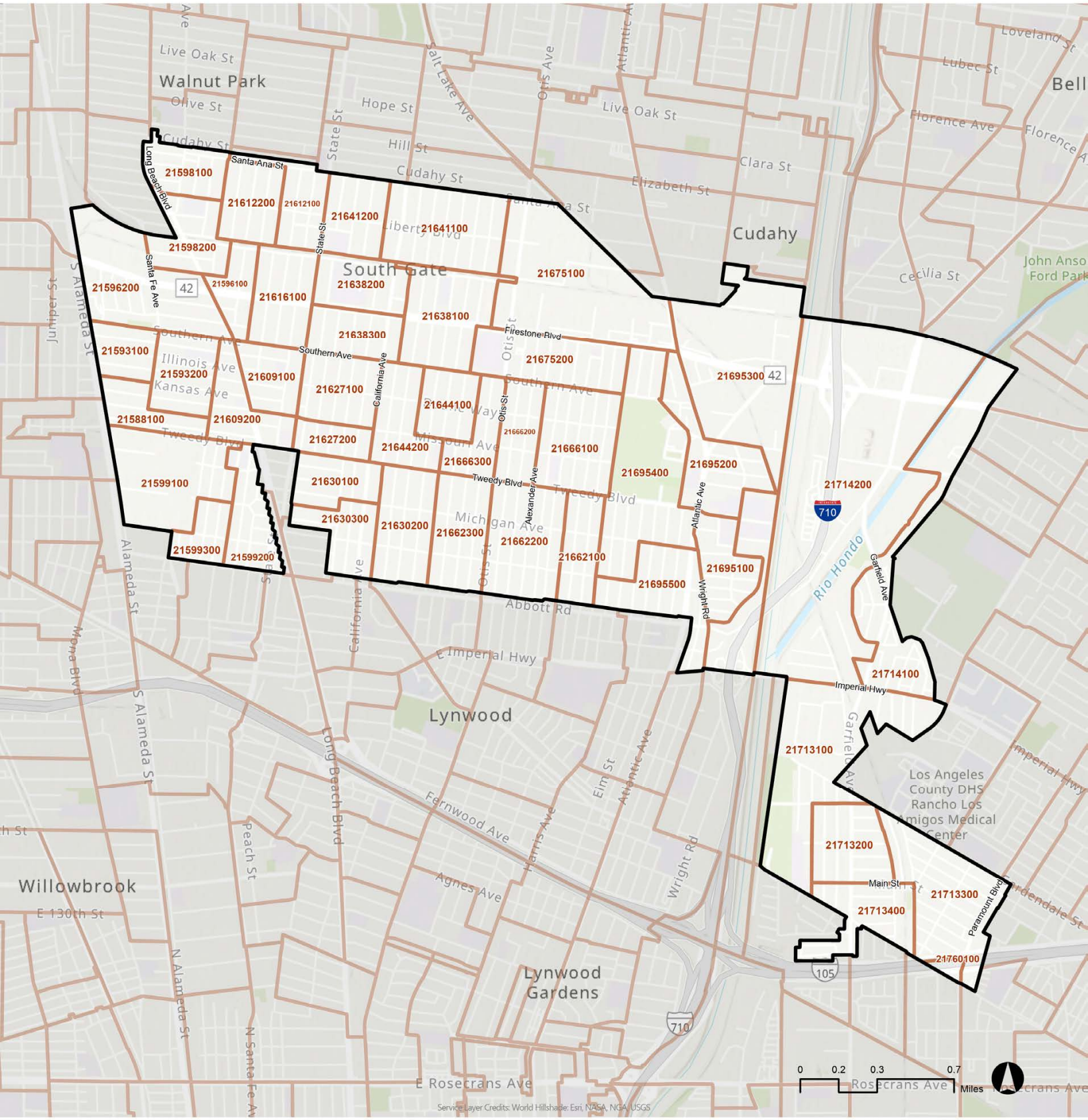
2020 Census Tracts in City of South Gate

City Boundary

2020 Census Tracts

Data Source: US Census, TIGER/Line® Shapefiles, 2020 | Map Created: 9/6/2023

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Transportation Analysis Zones (TAZ) Tier2 in City of South Gate

City Boundary

Transportation Analysis Zones (TAZ) Tier2 Boundary

Data Source: SCAG | Data Updated: 2021 | Map Created: 9/7/2023

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INNOVATING FOR A BETTER TOMORROW

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Orange, CA 92868
Tel: (213) 630-1548

Riverside County
3403 10th St., Ste. 805
Riverside, CA 92501
Tel: (951) 784-1513

San Bernardino County
1170 W. Third St., Ste. 140
San Bernardino, CA 92410
Tel: (213) 630-1499

Ventura County
4001 Mission Oaks Blvd., Ste. L
Camarillo, CA 93012
Tel: (213) 236-1960

For more information, please email SCAG staff at
LIST@scag.ca.gov

PLEASE RECYCLE AJ #3021

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H
Statutory Checklist Reference Documents

Sole Source Aquifer Map

California Important Farmland: 1984 - 2022

Overview

The California Important Farmland (CIF) dataset, frequently called the Farmland Mapping and Monitoring Program (FMMP) data, was established in 1982. Government Code Section 65570 mandates FMMP to biennially report on the conversion of farmland and grazing land, and to provide maps and data to local government and the public. FMMP provides data to decision makers for use in planning for the present and future use of California's agricultural land resources.

The data is a current inventory of agricultural resources. This data is for general planning purposes and has a minimum mapping unit of ten acres. The 2022 data is still being developed and will be updated as areas are completed.

GIS Data Download: GIS Data
Map Services: DLRP
Metadata: Metadata

Data Disclaimer

Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP) pursuant to Section 65570 of the California Government Code. To create the GIS data, FMMP combines current land use information with U.S. Department of Agriculture-Natural Resources Conservation Service (NRCS) soil survey data. Soil units qualifying for Prime

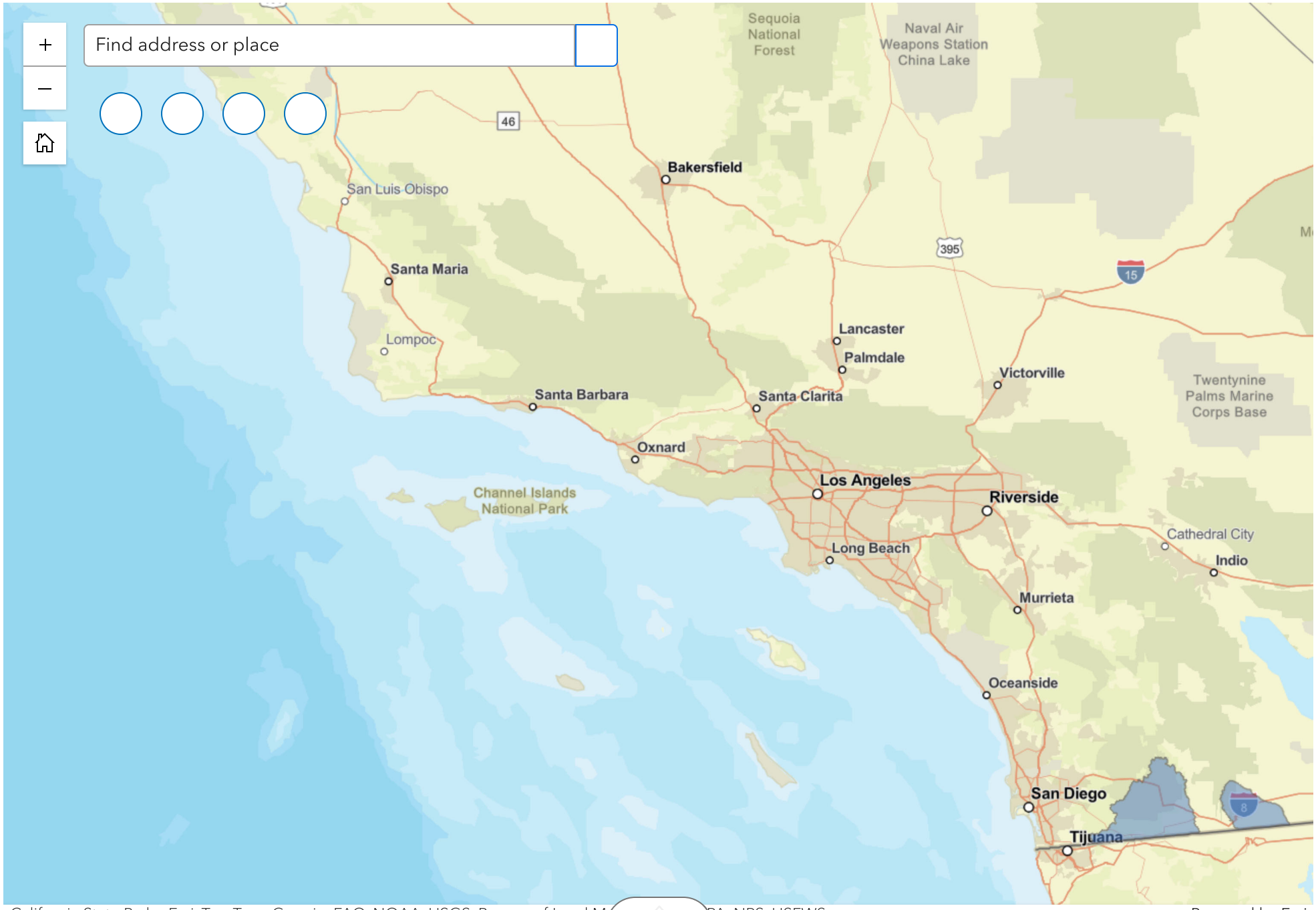


9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H
Statutory Checklist Reference Documents

National Wild and Scenic Rivers (NWSRS) Map

Sole Source Aquifers



California State Parks, Esri, TomTom, Garmin, FAO, NOAA, USGS, Bureau of Land M PA, NPS, USFWS

Powered by Esri

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H
Statutory Checklist Reference Documents

Important Farmland City of South Gate


Mojave River
Pacific Crest Na
Lancaster
Palmdale
Victorville
Hesperia
Santa Clarita
Santa Paula
ANGELES NATIONAL
Bob Hop Arp
FOREST
SAN BER
NATIONAL
FOREST
Simi Valley
Oxnard
405
Burbank
Rancho
Cucamonga
Thousand Oaks
Beverly
Hills
Los Angeles
Chino
Ontar Intrnt
Airprt
Yucaipa
Inglewood
Moreno Valley
Downey
215
Palm S
Intrnt
Airprt
Torrance
Corona
Anaheim
Perris
Cathedral
Long Beach
Garden
Grove
Santa Ana
Hemet
Irvine
Lake Elsinore
John Wayn Conty Arp
Murrieta
Laguna Niguel
San Clemente
Gulf of
Santa
Catalina
Oceanside
Vista
Escondido
Legend
esri

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix H
Statutory Checklist Reference Documents

Explosive and Flammable Hazards

Explosive and Flammable Hazards (CEST and EA)

General requirements	Legislation	Regulation
HUD-assisted projects must meet Acceptable Separation Distance (ASD) requirements to protect them from explosive and flammable hazards.	N/A	24 CFR Part 51 Subpart C
Reference		
https://www.hudexchange.info/environmental-review/explosive-and-flammable-facilities		

1. **Is the proposed HUD-assisted project itself the development of a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?**

   ☒ No

   → *Continue to Question 2.*

   ☐ Yes

   Explain:

   → *Go directly to Question 5.*

2. **Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?**

   ☐ No

   → *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.*

   ☒ Yes

   → *Continue to Question 3.*

3. **Within 1 mile of the project site, are there any current *or planned* stationary aboveground storage containers that are covered by 24 CFR 51C? Containers that are NOT covered under the regulation include:**
   - **Containers 100 gallons or less in capacity, containing common liquid industrial fuels OR**
   - **Containers of liquified petroleum gas (LPG) or propane with a water volume capacity of 1,000 gallons or less that meet the requirements of the 2017 version of National Fire Protection Association (NFPA) Code 58.**

   If all containers within the search area fit the above criteria, answer "no." For any other type of aboveground storage container within the search area that holds one of the

flammable or explosive materials listed in Appendix I of 24 CFR part 51 subpart C, answer "yes."

☐ No

→ *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide all documents used to make your determination.*

☒ Yes

→ *Continue to Question 4.*

4. **Visit HUD's website to identify the appropriate tank or tanks to assess and to calculate the required separation distance using the electronic assessment tool. To document this step in the analysis, please attach the following supporting documents to this screen:**
   - **Map identifying the tank selected for assessment, and showing the distance from the tank to the proposed HUD-assisted project site; and**
   - **Electronic assessment tool calculation of the required separation distance.**

   Based on the analysis, is the proposed HUD-assisted project site located at or beyond the required separation distance from all covered tanks?

   ☒ Yes

   → *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.*

   ☐ No

   → *Go directly to Question 6.*

5. **Is the hazardous facility located at an acceptable separation distance from residences and any other facility or area where people may congregate or be present?**

   Please visit HUD's website for information on calculating Acceptable Separation Distance.

   ☐ Yes

   → *Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.*

   ☐ No

   → *Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.*
   Continue to Question 6.

6. **For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Mitigation measures may include both natural and manmade barriers, modification of the project design, burial or removal of the hazard, or other engineered solutions. Describe selected mitigation measures, including the timeline for implementation, and attach an implementation plan. If negative effects cannot be mitigated, cancel the project at this location.**
   Note that only licensed professional engineers should design and implement blast barriers. If a barrier will be used or the project will be modified to compensate for an unacceptable separation distance, provide approval from a licensed professional engineer.

Worksheet Summary

Compliance Determination

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

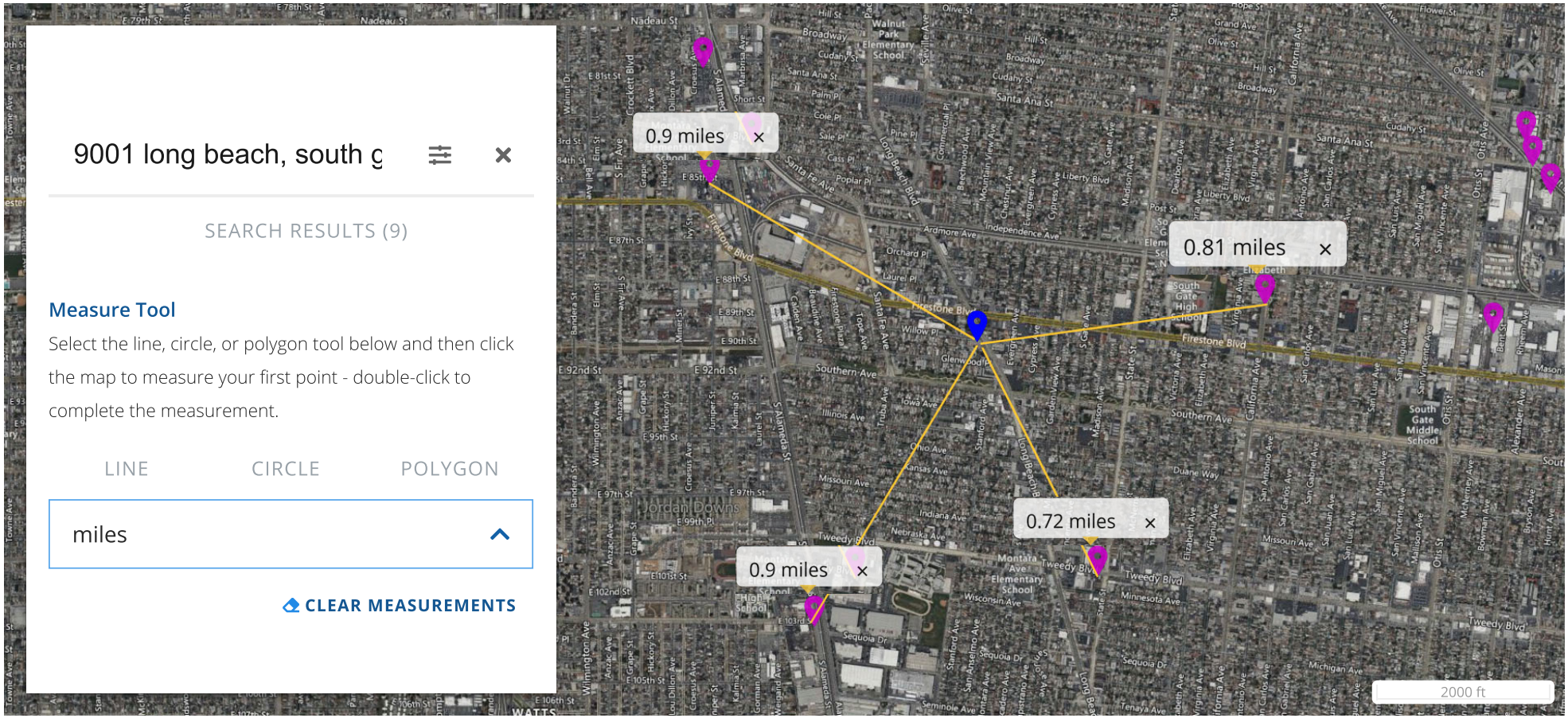
- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

The Los Angeles County Fire Department, as the County's Unified Program Agency (CUPA), administers the Aboveground Petroleum Storage Tank Program and reports to the California Environmental Reporting System. Reviewing the CalEPA Regulated Site Portal, there is not a site within one mile of the Project site that is part of the Aboveground Petroleum Storage regulatory program. The CalEPA Regulated Site Portal combines data about environmentally regulated facilities and sites throughout California into a single, searchable database and interactive map. The portal includes data on hazardous waste and materials, state and federal cleanups, impacted ground and surface waters, and toxic releases (https://siteportal.calepa.ca.gov/nsite/map/help, accessed December 22, 2022).

Are formal compliance steps or mitigation required?

☐ Yes

☒ No


9001 long beach, south g
SEARCH RESULTS (9)
Measure Tool
Select the line, circle, or polygon tool below and then click the map to measure your first point - double-click to complete the measurement.
LINE
CIRCLE
POLYGON
miles
CLEAR MEASUREMENTS
0.9 miles
0.81 miles
0.72 miles
0.9 miles
2000 ft

SOUTH GATE CITY HALL

8650 CALIFORNIA AVE
SOUTH GATE CA 90280

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE | CHEMICALS

Description	Source System	Program Id	Start Date	End Date	Long Description
Aboveground Petroleum Storage	California Environmental Reporting System	10274371	07/10/2013		Facilities that store petrol
Chemical Storage Facilities	California Environmental Reporting System	10274371	07/10/2013		Facilities that store hazarc

SOUTH GATE CITY HALL
8650 CALIFORNIA AVE
SOUTH GATE CA 90280

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE | CHEMICALS

Chemical Storage

REPORTING PERIOD
2025

SUBMITTED ON
04/21/2025

Chemicals

Name	Max Daily Amount / Unit	Avg Daily Amount / Unit	Days Onsite
DIESEL	120-599 Gallons	0-11 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
684-76-30-2

HEALTH EFFECT(S)
—

CHEMICAL MIXES
—

JIFFY LUBE #358
9901 STATE ST
LYNWOOD CA 90262

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE | CHEMICALS

Description	Source System	Program Id	Start Date	End Date	Long Description
Aboveground Petroleum Storage	California Environmental Reporting System	10281148	07/10/2013		Facilities that store petrol
Chemical Storage Facilities	California Environmental Reporting System	10281148	07/10/2013		Facilities that store hazarc
Hazardous Waste Generator	California Environmental Reporting System	10281148	07/10/2013		Faclities that generate eitl agencies.

JIFFY LUBE #358
9901 STATE ST
LYNWOOD CA 90262

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE | CHEMICALS

Chemical Storage

REPORTING PERIOD
2024

SUBMITTED ON
03/08/2024

Chemicals

Name	Max Daily Amount / Unit	Avg Daily Amount / Unit	Days Onsite
WASTE OIL	600-1199 Gallons	120-599 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
64742-65-0

HEALTH EFFECT(S)
—

CHEMICAL MIXES

WASTE OIL

100.00%
WEIGHT

CAS NUMBER	IS EHS?
	No

+	WASTE COOLANT	120-599 Gallons	60-119 Gallons	365
+	SULFURIC LEAD ACID	500-999 Pounds	100-499 Pounds	365
+	OILY WATER	12-59 Gallons	12-59 Gallons	365
+	LUBE BASE OIL	120-599 Gallons	60-119 Gallons	365
−	LUBE BASE OIL	600-1199 Gallons	120-599 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
64742-65-0

HEALTH EFFECT(S)
—

CHEMICAL MIXES

ADDITIVES	LUBRICATING BASE OIL
15.00% WEIGHT	85.00% WEIGHT
CAS NUMBER: IS EHS? No	CAS NUMBER: 64742-65-0 IS EHS? No

+	LUBE BASE OIL	120-599 Gallons	60-119 Gallons	365
+	LUBE BASE OIL	120-599 Gallons	120-599 Gallons	365
+	LUBE BASE OIL	120-599 Gallons	120-599 Gallons	365

+	LUBE BASE OIL	60-119 Gallons	60-119 Gallons	365
+	LUBE BASE OIL	120-599 Gallons	120-599 Gallons	365
+	LUBE BASE OIL	120-599 Gallons	60-119 Gallons	365
+	ETHYLENE GLYCOL	120-599 Gallons	60-119 Gallons	365
+	EMPTY	600-1199 Gallons	0-11 Gallons	365
−	AUTOMATIC TRANSMISSION FLUID	600-1199 Gallons	600-1199 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
64743-57-0

HEALTH EFFECT(S)
—

CHEMICAL MIXES

ADDITIVES	PETROLEUM HYDROCARBBON DISTILLATES
19.00% WEIGHT	81.00% WEIGHT
CAS NUMBER: — IS EHS?: No	CAS NUMBER: 64743-57-0 IS EHS?: No

−	AUTOMATIC TRANSMISSION FLUID	60-119 Gallons	60-119 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
64743-57-0

HEALTH EFFECT(S)
—

CHEMICAL MIXES

ADDITIVES	PETROLEUM HYDROCARBBON DISTILLATES
15.00% WEIGHT	85.00% WEIGHT
CAS NUMBER: IS EHS? No	CAS NUMBER: 64743-57-0 IS EHS? No

SUN-LITE METALS

2210 E 085TH ST
LOS ANGELES CA 90001

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE | CHEMICALS

Description	Source System	Program Id	Start Date	End Date	Long Description
Aboveground Petroleum Storage	California Environmental Reporting System	10273936	07/10/2013		Facilities that store petrol
Chemical Storage Facilities	California Environmental Reporting System	10273936	07/10/2013		Facilities that store hazarc
Hazardous Waste Generator	California Environmental Reporting System	10273936	07/10/2013		Faclities that generate eitl agencies.

SUN-LITE METALS

2210 E 085TH ST
LOS ANGELES CA 90001

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE | CHEMICALS

Chemical Storage

REPORTING PERIOD	SUBMITTED ON
2025	07/01/2025

Chemicals

	Name	Max Daily Amount / Unit	Avg Daily Amount / Unit	Days Onsite
−	Propane	600-1199 Gallons	120-599 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
2.1 - Flammable Gases

CAS NUMBER
74-98-6

HEALTH EFFECT(S)
—

CHEMICAL MIXES
—

+	Oxygen	120-599 Gallons	120-599 Gallons	365
−	Oxygen	0-2599 Cubic Feet	0-2599 Cubic Feet	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
2.2 - Nonflammable Gases

CAS NUMBER
7782-44-7

HEALTH EFFECT(S)
—

CHEMICAL MIXES
—

+	OIL CONTAMINATED SOIL	100-499 Pounds	100-499 Pounds	365
+	OIL CONTAMINATED RAGS	100-499 Pounds	0-99 Pounds	365
+	OIL CONTAMINATED GLOVES	100-499 Pounds	0-99 Pounds	365
+	MOTOR OIL	12-59 Gallons	12-59 Gallons	365
−	Mineral Oil, Compressor Oil	600-1199 Gallons	600-1199 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
9 - Misc. Hazardous Materials

CAS NUMBER
8042-47-5

HEALTH EFFECT(S)
—

CHEMICAL MIXES
—

+	LUBRICATING OILS - USED	120-599 Gallons	60-119 Gallons	365
+	HYDRAULIC OIL	12-59 Gallons	12-59 Gallons	365
+	HYDRAULIC FLUID	120-599 Gallons	60-119 Gallons	90
+	Ethylene Glycol	12-59 Gallons	12-59 Gallons	365

+	Diesel Fuel No. 2	120-599 Gallons	120-599 Gallons	365
−	Diesel Fuel	600-1199 Gallons	600-1199 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
68334-30-5

HEALTH EFFECT(S)
—

CHEMICAL MIXES
—

SA RECYCLING LLC
10313 S ALAMEDA ST
LOS ANGELES CA 90002

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE | CHEMICALS

Description	Source System	Program Id	Start Date	End Date	Long Description
Aboveground Petroleum Storage	California Environmental Reporting System	10268710	07/10/2013		Facilities that store petrol
Chemical Storage Facilities	California Environmental Reporting System	10268710	07/10/2013		Facilities that store hazarc
Hazardous Waste Generator	California Environmental Reporting System	10268710	07/10/2013		Faclities that generate eitl agencies.
RCRA LQ HW Generator	California Environmental Reporting System	10268710	07/10/2013		Facilities that generate lar agencies.

SA RECYCLING LLC
10313 S ALAMEDA ST
LOS ANGELES CA 90002

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE | CHEMICALS

Chemical Storage

REPORTING PERIOD	SUBMITTED ON
2025	02/28/2025

Chemicals

	Name	Max Daily Amount / Unit	Avg Daily Amount / Unit	Days Onsite
+	WASTE REFRIGERANT OIL	120-599 Gallons	12-59 Gallons	365
−	WASTE PETROLEUM HYDROCARBONS	600-1199 Gallons	120-599 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
64742-54-7

HEALTH EFFECT(S)
—

CHEMICAL MIXES

MIXTURE OF NUMEROUS WASTE OILS	HYDROTREATED HEAVY PARAFFINIC DISTILLATES
% WEIGHT	100.00% WEIGHT

CAS NUMBER	IS EHS?
	No

CAS NUMBER	IS EHS?
6474-254-7	No

+	WASTE MERCURY SWITCHES	0-99 Pounds	0-99 Pounds	365
−	WASTE GASOLINE	600-1199 Gallons	120-599 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
86290-81-5

HEALTH EFFECT(S)
—

CHEMICAL MIXES

ETHANOL	ETHYL BENEZE	UNLEADED GASOLINE	ETHYL BENZENE
% WEIGHT	5.00% WEIGHT	91.00% WEIGHT	2.00% WEIGHT
CAS NUMBER IS EHS? No	CAS NUMBER 64-17-5 IS EHS? No	CAS NUMBER 64742-54-7 IS EHS? No	CAS NUMBER 100-41-4 IS EHS? No

BENZENE
2.00% WEIGHT

CAS NUMBER	IS EHS?
71-43-2	No

−	Waste Cylinders	0-2599 Cubic Feet	0-2599 Cubic Feet	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
2.1 - Flammable Gases

CAS NUMBER
74-86-2

HEALTH EFFECT(S)
—

CHEMICAL MIXES
—

+	WASTE BALLASTS & CAPACITORS WITH PCBS	500-999 Pounds	100-499 Pounds	365
−	REFRIGERANTS	0-2599 Cubic Feet	0-2599 Cubic Feet	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
2.2 - Nonflammable Gases

CAS NUMBER
75-71-8

HEALTH EFFECT(S)
—

CHEMICAL MIXES
—

−	RECYCLED GASOLINE	1200-2999 Gallons	600-1199 Gallons	365

COMMON NAME

EHS NAME

HAZARD TYPE(S)

—

—

—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
8006-61-9

HEALTH EFFECT(S)
—

CHEMICAL MIXES

GASOLINE
100.00% WEIGHT

CAS NUMBER	IS EHS?
8006-61-9	No

—	RECYCLABLE LEAD ACID BATTERIES	1000-4999 Pounds	1000-4999 Pounds	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
8 - Corrosives (Liquids and Solids)

CAS NUMBER
7439-92-1

HEALTH EFFECT(S)
—

CHEMICAL MIXES

SULFURIC ACID	LEAD DIOXIDE	LEAD	LEAD SULFATE
34.00% WEIGHT	31.00% WEIGHT	34.00% WEIGHT	1.00% WEIGHT

CAS NUMBER	IS EHS?
7664-93-9	No

CAS NUMBER	IS EHS?
1309-60-0	No

CAS NUMBER	IS EHS?
7439-92-1	No

CAS NUMBER	IS EHS?
7446-14-2	No

+	Propane	12-59 Gallons	12-59 Gallons	365
+	PROPANE	60-119 Gallons	12-59 Gallons	365
−	Oxygen	0-2599 Cubic Feet	0-2599 Cubic Feet	0

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
2.2 - Nonflammable Gases

CAS NUMBER
7782-44-7

HEALTH EFFECT(S)
—

CHEMICAL MIXES
—

−	OILY ABSORBENT, SWEEPINGS	1000-4999 Pounds	500-999 Pounds	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
9 - Misc. Hazardous Materials

CAS NUMBER

HEALTH EFFECT(S)
—

CHEMICAL MIXES

ABSORBENT	OIL	ETHYBENZENE	ETHANOL
90.00%	10.00%	2.00%	5.00%

WEIGHT	WEIGHT	WEIGHT	WEIGHT
CAS NUMBER IS EHS? No	CAS NUMBER IS EHS? 6474-25-47 No	CAS NUMBER IS EHS? 100-41-4 No	CAS NUMBER IS EHS? 64-17-5 No

+	Lubricating oils (petroleum), HYDROCARBONS	120-599 Gallons	120-599 Gallons	365
+	HaloKlear BHR-P50 Flocculant	120-599 Gallons	60-119 Gallons	365
+	Ethylene Glycol	120-599 Gallons	120-599 Gallons	365
−	DIESEL FUEL	600-1199 Gallons	120-599 Gallons	365

COMMON NAME
—

EHS NAME
—

HAZARD TYPE(S)
—

DOT HAZARD CLASS
3 - Flammable and Combustible Liquids

CAS NUMBER
64741-59-9

HEALTH EFFECT(S)
—

CHEMICAL MIXES

DIESEL FUEL NO. 2

100.00%
WEIGHT

CAS NUMBER	IS EHS?
64741-59-9	No

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft^2 - hr - people and 10,000 BTU/ft^2 - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD- Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Sitting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	**Yes:** ☑ **No:** ☐
Is the container under pressure?	**Yes:** ☑ **No:** ☐
Does the container hold a cryogenic liquified gas?	**Yes:** ☐ **No:** ☑
Is the container diked?	**Yes:** ☐ **No:** ☐
What is the volume (gal) of the container?	1199
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	

Calculate Acceptable Separation Distance

Diked Area (sqft)	
ASD for Blast Over Pressure (ASDBOP)	232.57

ASD for Blast Overpressure (ASDBOP)	252.57
ASD for Thermal Radiation for People (ASDPPU)	298.29
ASD for Thermal Radiation for Buildings (ASDBPU)	54.68
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options **(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)**

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us (https://www.hudexchange.info/contact-us/)** form.

Related Information

- **ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)**
- **ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)**

Acceptable Separation Distance (ASD) Electronic Assessment Tool

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Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	**Yes:** ☑ **No:** ☐
Is the container under pressure?	**Yes:** ☐ **No:** ☑
Does the container hold a cryogenic liquified gas?	**Yes:** ☐ **No:** ☐
Is the container diked?	**Yes:** ☐ **No:** ☑
What is the volume (gal) of the container?	1199
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	

Calculate Acceptable Separation Distance

Diked Area (sqft)	
ASD for Blast Over Pressure (ASDBOP)	

ASD for Blast Overpressure (ASDBOP)	
ASD for Thermal Radiation for People (ASDPPU)	298.29
ASD for Thermal Radiation for Buildings (ASDBPU)	54.68
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options **(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)**

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us (https://www.hudexchange.info/contact-us/)** form.

Related Information

- **ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)**
- **ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)**

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Environmental Assessment Reference Documents

- South Gate General Plan 2035 Corridor Map
- Department of Conservation, Geologic Hazards: Liquefaction Zone
- Department of Conservation, Geologic Hazards: Alquist-Priolo Earthquake Zone
- Department of Conservation, Geologic Hazards: Landslides
- US Web Soils Survey Map & Map Unit Description
- US Census Bureau, S2301 Employment Status, California
- US Census Bureau, S2301 Employment Status, US
- US Census Bureau, S2301 Employment Status, City of South Gate
- SCAG 6th Cycle Final RNHA Allocation Plan
- State Historic Preservation Officer Project Determination Letter
- City of South Gate Response to SHPO Request, prepared by South Environmental
- City of South Gate Tribal Consultation Tracking Log

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

South Gate General Plan 2035 Corridor Map

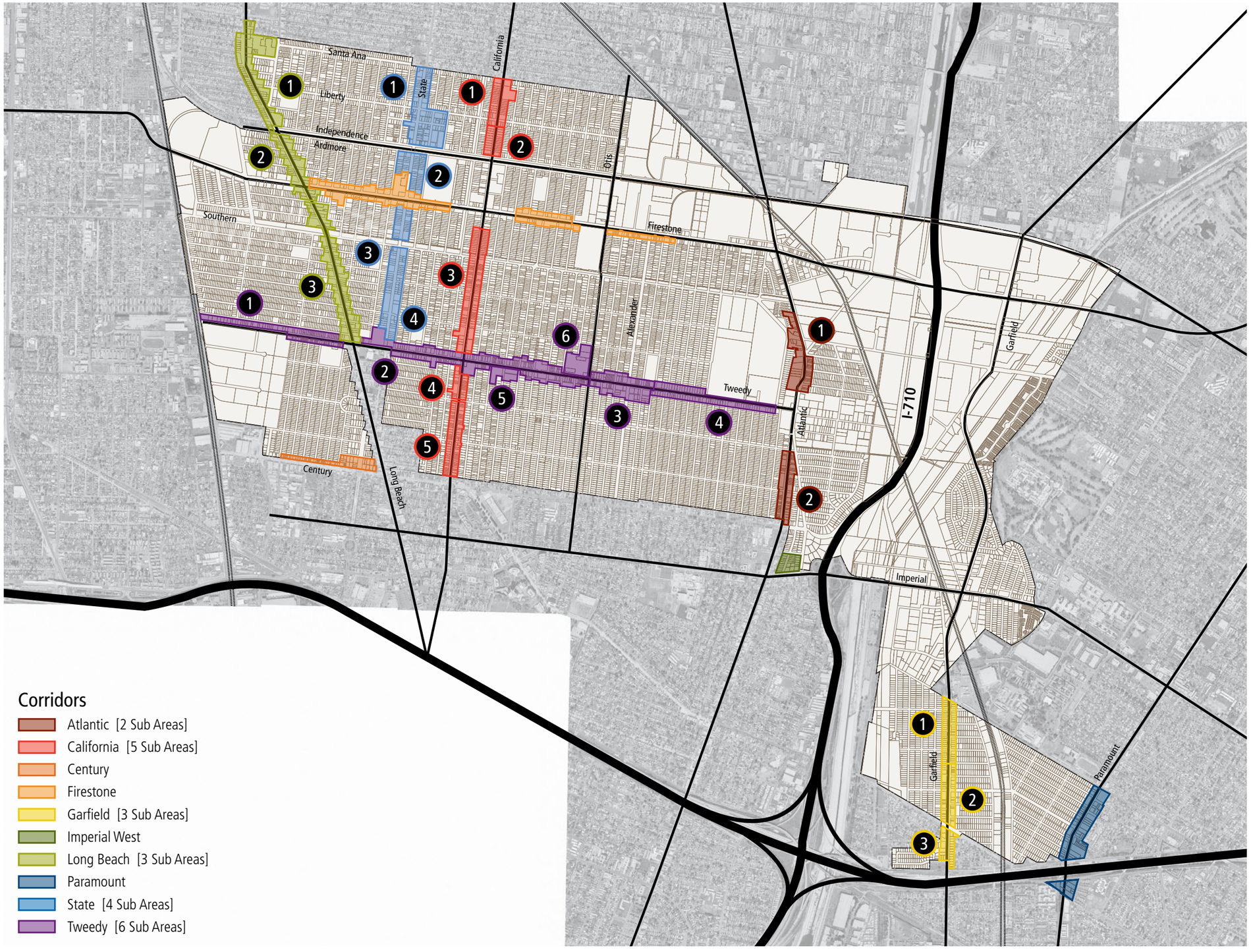
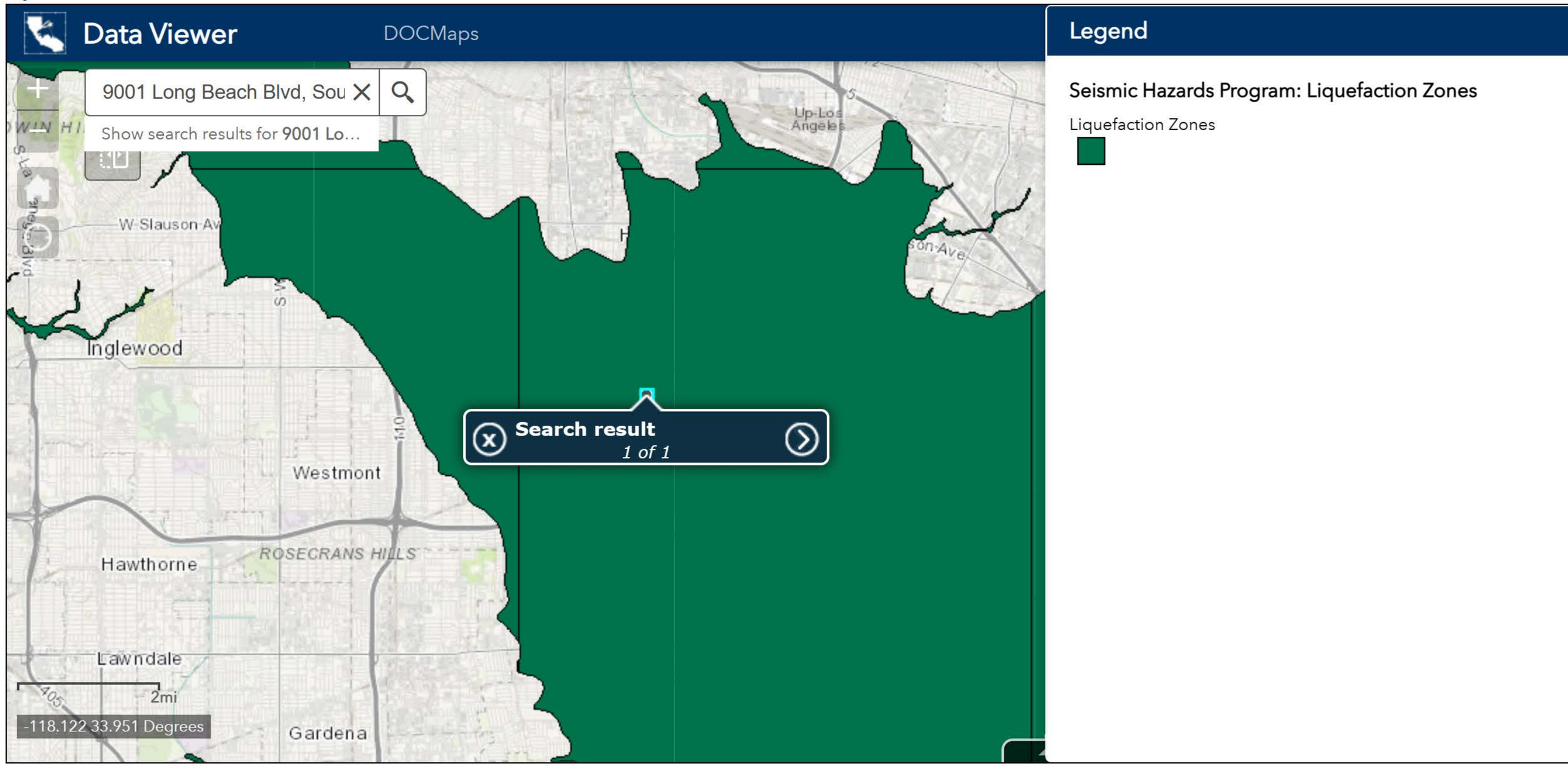


Figure CD 5 Corridors

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

Department of Conservation, Geologic Hazards: Liquefaction Zone


Data Viewer
DOCMaps
9001 Long Beach Blvd, Sou
Show search results for 9001 Lo...
Search result
1 of 1
Inglewood
Westmont
Hawthorne
ROSECRANS HILLS
Lawndale
Gardena
W Slauson Av
Up-Los Angeles
2mi
-118.122 33.951 Degrees
Legend
Seismic Hazards Program: Liquefaction Zones
Liquefaction Zones

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

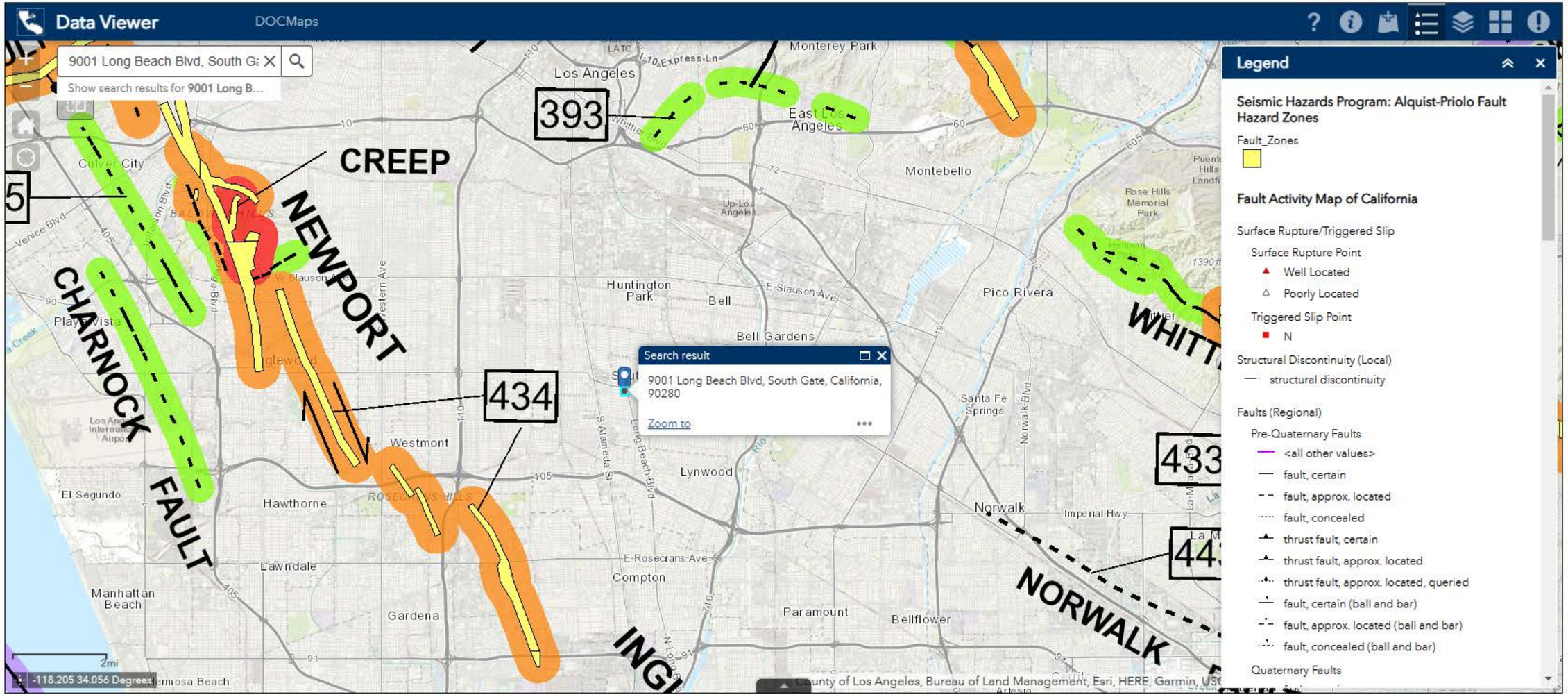
Appendix I
Statutory Checklist Reference Documents

Department of Conservation, Geologic Hazards: Alquist-Priolo Earthquake Zone

Department of Conservation Ma
https://maps.conservation.ca.gov/geologichazards/
Import favorites | Gmail | My Drive | Ajera | Ecosia | 2022 CEQA

Data Viewer

Open full screen in a new tab



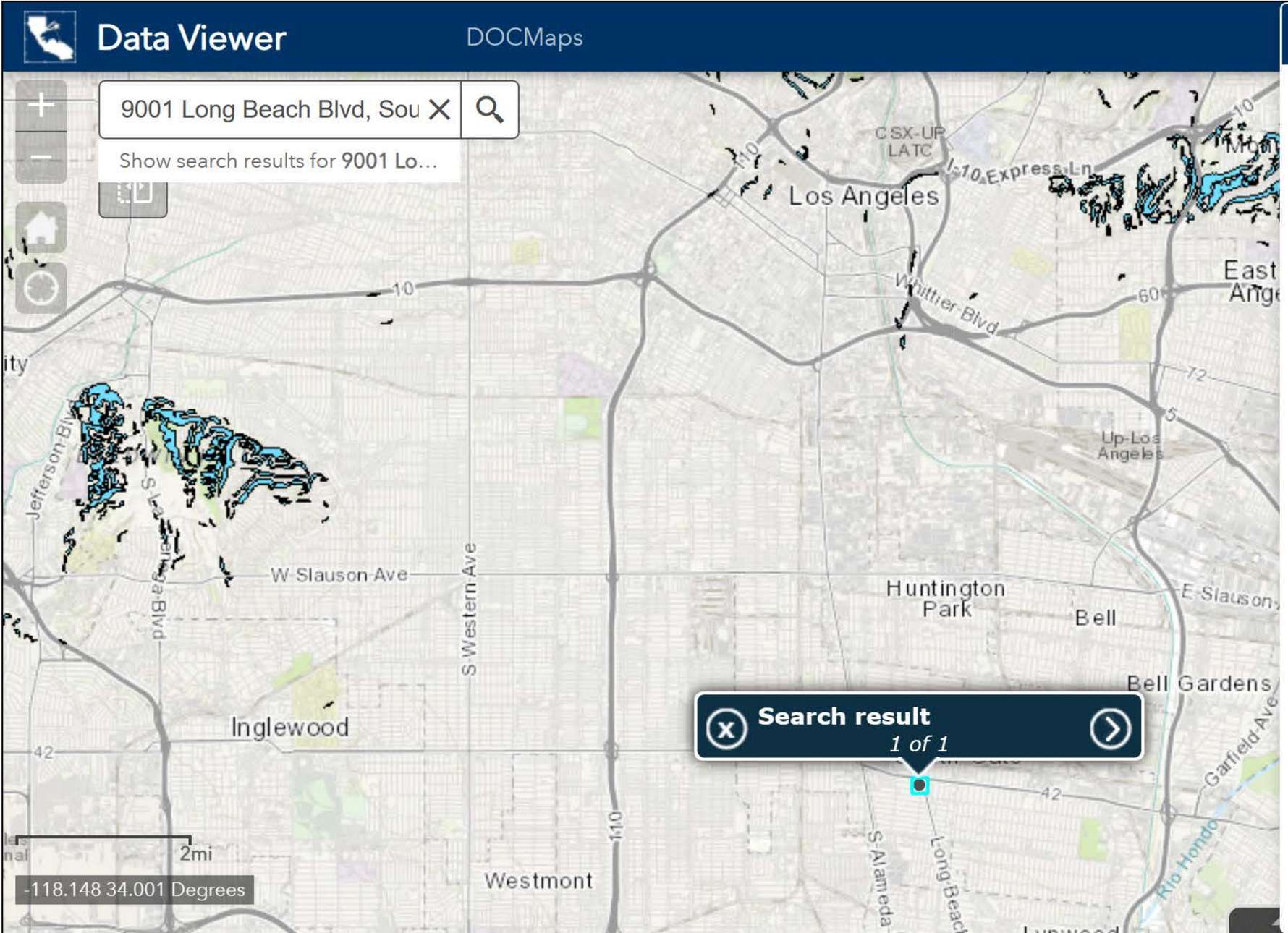
Geologic Hazards Data & Maps

52°F Clear
Search
9:22 AM 12/20/2022

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

Department of Conservation, Geologic Hazards: Landslides



Legend

Seismic Hazards Program: Landslide Zones

Landslide Zones

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

US Web Soils Survey Map & Map Unit Description

Search

Map Unit Legend

Los Angeles County, California, Southeastern Part (CA696)

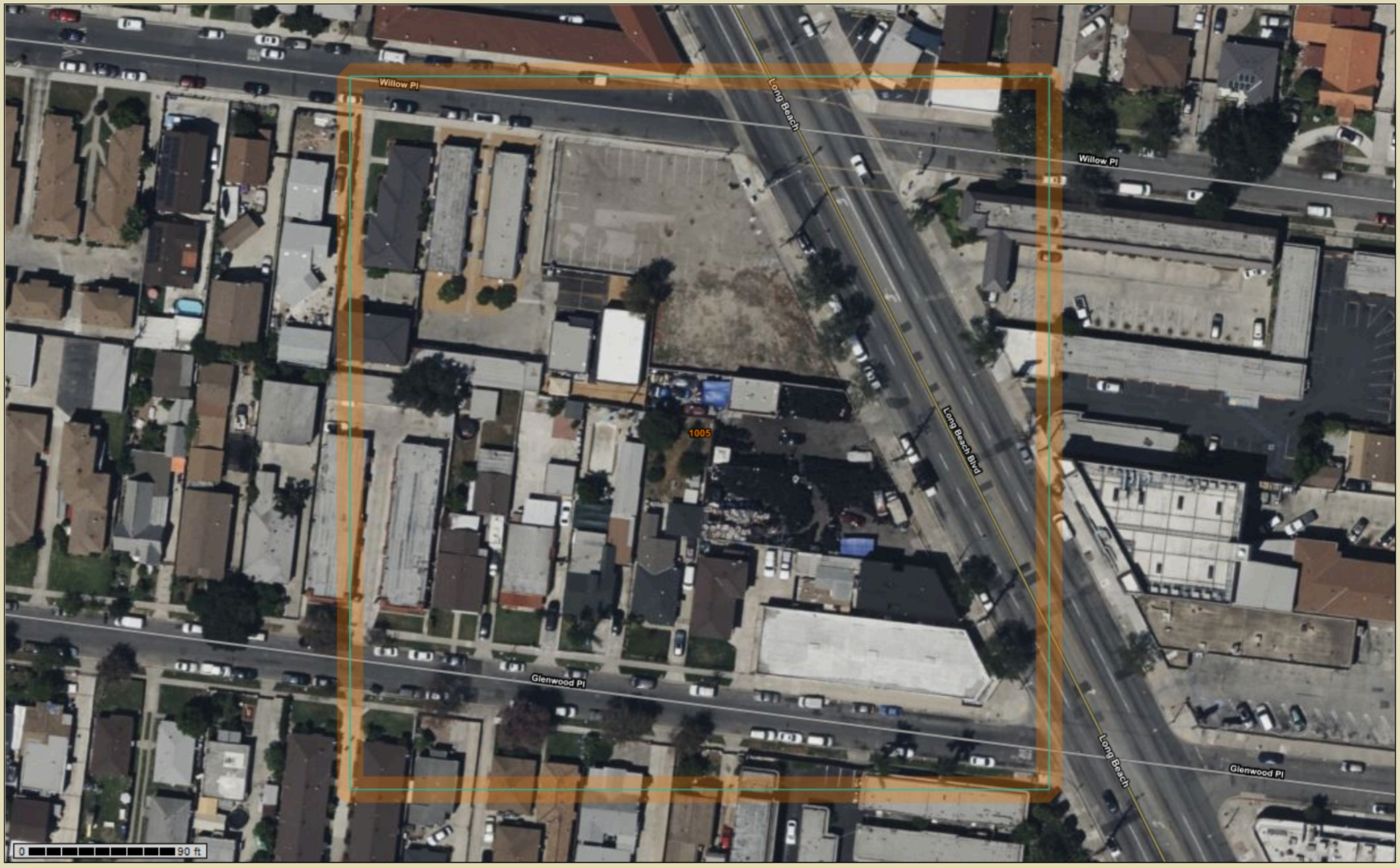
Los Angeles County, California, Southeastern Part (CA696)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1005	Urban land-Biscailuz-Hueneme, drained complex, 0 to 2 percent slopes	4.3	100.0%
Totals for Area of Interest		**4.3**	**100.0%**

Soil Map

Legend

Scale (not to scale)



Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:24,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Los Angeles County, California, Southeastern Part

1005—Urban land-Biscailuz-Hueneme, drained complex, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2nbzh
Elevation: 0 to 190 feet
Mean annual precipitation: 11 to 16 inches
Mean annual air temperature: 63 to 66 degrees F

Frost-free period: 350 to 365 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Urban land: 50 percent
Biscailuz and similar soils: 20 percent
Hueneme, drained, and similar soils: 15 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform: Alluvial fans

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 0 inches to manufactured layer
Runoff class: Very high

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Ecological site: R019XG911CA - Loamy Fan
Hydric soil rating: No

Description of Biscailuz

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Discontinuous human-transported material over mixed alluvium derived from granite and/or sedimentary rock

Typical profile

^A - 0 to 3 inches: loam
^Cu1 - 3 to 12 inches: loam
2Bk1 - 12 to 24 inches: loam
2Bk2 - 24 to 31 inches: loam
2C2 - 31 to 43 inches: loamy fine sand
3Ab3 - 43 to 79 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneRare

Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B
Ecological site: R019XG911CA - Loamy Fan
Hydric soil rating: No

Description of Hueneme, Drained

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Discontinuous human-transported material over mixed alluvium derived from granite and/or sedimentary rock

Typical profile

^A - 0 to 4 inches: fine sandy loam
C1 - 4 to 22 inches: fine sandy loam
C2 - 22 to 41 inches: fine sandy loam
C3 - 41 to 61 inches: silt loam
C4 - 61 to 75 inches: fine sandy loam
C5 - 75 to 79 inches: very fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneRare
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 8.0
Available water supply, 0 to 60 inches: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B
Ecological site: R019XG911CA - Loamy Fan

Hydric soil rating: No

Minor Components

Bolsa, drained

Percent of map unit: 8 percent
Landform: Alluvial fans
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Pico

Percent of map unit: 5 percent
Landform: Alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Xerorthents

Percent of map unit: 2 percent
Landform: Alluvial fans
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Data Source Information

Soil Survey Area: Los Angeles County, California, Southeastern Part
Survey Area Data: Version 9, Sep 1, 2022

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

US Census Bureau, S2301 Employment Status, California

Table: ACSST5Y2021.S2301

	California			
	Total		Unemployment rate	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Population 16 years and over	31,499,704	±4,287	6.5%	±0.1
AGE				
16 to 19 years	2,075,785	±4,721	19.5%	±0.4
20 to 24 years	2,626,849	±1,451	11.1%	±0.2
25 to 29 years	2,992,210	±1,133	7.4%	±0.2
30 to 34 years	2,949,412	±911	5.9%	±0.1
35 to 44 years	5,341,049	±1,445	5.3%	±0.1
45 to 54 years	5,043,403	±1,340	5.1%	±0.1
55 to 59 years	2,502,174	±8,929	5.1%	±0.1
60 to 64 years	2,298,943	±8,915	5.2%	±0.1
65 to 74 years	3,363,447	±816	5.4%	±0.2
75 years and over	2,306,432	±766	5.7%	±0.5
RACE AND HISPANIC OR LATINO ORIGIN				
White alone	16,866,694	±25,399	6.0%	±0.1
Black or African American alone	1,819,749	±6,359	10.5%	±0.3
American Indian and Alaska Native alone	288,126	±6,268	9.1%	±0.5
Asian alone	4,911,186	±7,607	5.1%	±0.1
Native Hawaiian and Other Pacific Islander alone	120,445	±1,992	7.7%	±0.8
Some other race alone	4,594,343	±24,825	7.0%	±0.1
Two or more races	2,899,161	±25,224	8.5%	±0.2
Hispanic or Latino origin (of any race)	11,482,033	±3,543	7.1%	±0.1
White alone, not Hispanic or Latino	12,177,057	±4,909	5.8%	±0.1

Table: ACSST5Y2021.S2301

	California			
	Total		Unemployment rate	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Population 20 to 64 years	23,754,040	±1,322	6.2%	±0.1
SEX				
Male	12,030,042	±1,070	6.0%	±0.1
Female	11,723,998	±1,048	6.3%	±0.1
With own children under 18 years	3,980,978	±17,897	6.1%	±0.1
With own children under 6 years only	855,448	±10,500	6.3%	±0.3
With own children under 6 years and 6 to 17 years	798,255	±6,030	7.3%	±0.3
With own children 6 to 17 years only	2,327,275	±13,455	5.6%	±0.2
POVERTY STATUS IN THE PAST 12 MONTHS				
Below poverty level	2,561,920	±21,505	23.3%	±0.3
At or above the poverty level	20,816,168	±21,685	4.9%	±0.1
DISABILITY STATUS				
With any disability	1,908,861	±12,591	13.4%	±0.3
EDUCATIONAL ATTAINMENT				
Population 25 to 64 years	21,127,191	±1,337	5.6%	±0.1
Less than high school graduate	3,174,485	±16,996	7.6%	±0.2
High school graduate (includes equivalency)	4,332,064	±25,912	7.0%	±0.1
Some college or associate's degree	6,017,519	±18,692	6.0%	±0.1
Bachelor's degree or higher	7,603,123	±36,727	4.0%	±0.1

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

US Census Bureau, S2301 Employment Status, US

Table: ACSST5Y2021.S2301

	United States			
	Total		Unemployment rate	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Population 16 years and over	264,087,642	±15,794	5.5%	±0.1
AGE				
16 to 19 years	17,360,900	±14,969	15.9%	±0.1
20 to 24 years	21,574,425	±8,736	9.6%	±0.1
25 to 29 years	22,854,328	±7,073	6.3%	±0.1
30 to 34 years	22,506,614	±6,909	5.2%	±0.1
35 to 44 years	42,441,883	±8,411	4.5%	±0.1
45 to 54 years	41,631,458	±8,551	4.1%	±0.1
55 to 59 years	21,928,936	±27,479	4.0%	±0.1
60 to 64 years	20,900,477	±28,268	3.8%	±0.1
65 to 74 years	31,590,619	±4,450	4.1%	±0.1
75 years and over	21,298,002	±4,480	4.0%	±0.1
RACE AND HISPANIC OR LATINO ORIGIN				
White alone	184,597,921	±76,610	4.6%	±0.1
Black or African American alone	32,357,111	±23,747	9.2%	±0.1
American Indian and Alaska Native alone	2,087,150	±11,584	9.2%	±0.2
Asian alone	15,438,177	±13,725	4.6%	±0.1
Native Hawaiian and Other Pacific Islander alone	480,126	±4,259	7.2%	±0.4
Some other race alone	13,751,844	±58,174	6.7%	±0.1
Two or more races	15,375,313	±53,107	7.6%	±0.1
Hispanic or Latino origin (of any race)	44,041,980	±7,717	6.4%	±0.1
White alone, not Hispanic or Latino	163,862,039	±23,563	4.5%	±0.1

Table: ACSST5Y2021.S2301

	United States			
	Total		Unemployment rate	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Population 20 to 64 years	193,838,121	±10,169	5.1%	±0.1
SEX				
Male	96,972,069	±7,102	5.2%	±0.1
Female	96,866,052	±6,292	5.1%	±0.1
With own children under 18 years	33,519,284	±141,545	5.0%	±0.1
With own children under 6 years only	7,480,143	±74,640	5.7%	±0.1
With own children under 6 years and 6 to 17 years	6,726,973	±24,684	6.2%	±0.1
With own children 6 to 17 years only	19,312,168	±88,355	4.4%	±0.1
POVERTY STATUS IN THE PAST 12 MONTHS				
Below poverty level	21,997,436	±127,946	21.3%	±0.1
At or above the poverty level	168,192,065	±135,232	3.9%	±0.1
DISABILITY STATUS				
With any disability	19,921,058	±56,355	11.6%	±0.1
EDUCATIONAL ATTAINMENT				
Population 25 to 64 years	172,263,696	±11,754	4.6%	±0.1
Less than high school graduate	17,756,046	±103,886	8.1%	±0.1
High school graduate (includes equivalency)	43,535,564	±197,501	6.1%	±0.1
Some college or associate's degree	50,581,536	±53,165	4.8%	±0.1
Bachelor's degree or higher	60,390,550	±307,303	2.9%	±0.1

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

US Census Bureau, S2301 Employment Status, City of South Gate

Table: ACSST5Y2021.S2301

	South Gate city, California			
	Total		Unemployment rate	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Population 16 years and over	72,165	±935	8.6%	±0.9
AGE				
16 to 19 years	5,772	±472	31.4%	±7.7
20 to 24 years	7,221	±608	12.4%	±3.1
25 to 29 years	8,004	±710	11.3%	±2.7
30 to 34 years	6,620	±593	8.5%	±2.8
35 to 44 years	12,494	±793	5.6%	±1.8
45 to 54 years	12,189	±902	5.5%	±1.7
55 to 59 years	5,026	±577	6.4%	±3.8
60 to 64 years	4,633	±503	6.3%	±3.6
65 to 74 years	6,676	±537	7.2%	±3.9
75 years and over	3,530	±466	38.3%	±27.1
RACE AND HISPANIC OR LATINO ORIGIN				
White alone	32,012	±1,862	8.7%	±1.5
Black or African American alone	553	±172	22.0%	±9.5
American Indian and Alaska Native alone	1,056	±321	12.1%	±7.5
Asian alone	672	±498	3.2%	±4.5
Native Hawaiian and Other Pacific Islander alone	119	±149	29.0%	±19.2
Some other race alone	26,630	±1,776	9.1%	±1.6
Two or more races	11,123	±1,862	6.5%	±2.5
Hispanic or Latino origin (of any race)	68,315	±1,175	8.5%	±1.0
White alone, not Hispanic or Latino	2,362	±379	5.3%	±5.0

Table: ACSST5Y2021.S2301

	South Gate city, California			
	Total		Unemployment rate	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Population 20 to 64 years	56,187	±927	7.8%	±0.9
SEX				
Male	27,927	±972	7.2%	±1.1
Female	28,260	±667	8.5%	±1.4
With own children under 18 years	10,216	±504	6.7%	±2.2
With own children under 6 years only	1,727	±320	2.4%	±2.6
With own children under 6 years and 6 to 17 years	1,918	±274	6.4%	±4.4
With own children 6 to 17 years only	6,571	±563	8.1%	±3.2
POVERTY STATUS IN THE PAST 12 MONTHS				
Below poverty level	6,477	±830	26.2%	±5.6
At or above the poverty level	49,682	±1,235	6.1%	±0.9
DISABILITY STATUS				
With any disability	3,938	±626	22.9%	±7.8
EDUCATIONAL ATTAINMENT				
Population 25 to 64 years	48,966	±987	7.1%	±1.0
Less than high school graduate	17,283	±1,053	9.0%	±2.0
High school graduate (includes equivalency)	13,846	±868	4.8%	±1.3
Some college or associate's degree	12,094	±826	8.7%	±2.2
Bachelor's degree or higher	5,743	±672	4.5%	±1.9

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

SCAG 6th Cycle Final RNHA Allocation Plan

SCAG 6TH CYCLE FINAL RHNA ALLOCATION PLAN (approved by HCD on 3/22/21 and modified on 7/1/21)*

7/1/21

ALLOCATION BY COUNTY

	Total	Very-low income	Low income	Moderate income	Above moderate income
Imperial	15,993	4,671	2,357	2,198	6,767
Los Angeles	812,060	217,273	123,022	131,381	340,384
Orange	183,861	46,416	29,242	32,546	75,657
Riverside	167,351	41,995	26,473	29,167	69,716
San Bernardino	138,110	35,667	21,903	24,140	56,400
Ventura	24,452	5,774	3,810	4,525	10,343
TOTAL	1,341,827	351,796	206,807	223,957	559,267

ALLOCATION BY Regional Early Action Planning (REAP) SUBREGIONS

REAP Subregion	Total	Very-low income	Low income	Moderate income	Above moderate income
CVAG	31,619	6,204	4,664	5,561	15,190
Gateway Cities COG	71,678	20,029	10,391	10,822	30,436
Imperial County	15,993	4,671	2,357	2,198	6,767
Las Virgenes-Malibu COG	933	362	199	183	189
Los Angeles City	456,643	115,978	68,743	75,091	196,831
North Los Angeles County	15,663	4,001	2,129	2,332	7,201
Orange County COG	183,861	46,416	29,242	32,546	75,657
San Bernardino COG/SBCTA	138,110	35,667	21,903	24,140	56,400
San Fernando Valley COG	34,023	9,850	5,588	5,614	12,971
San Gabriel Valley COG	89,616	25,208	13,400	14,074	36,934
South Bay Cities COG	34,179	10,221	5,236	5,539	13,183
Uninc. Los Angeles County	90,052	25,648	13,691	14,180	36,533
Uninc. Riverside County	40,647	10,371	6,627	7,347	16,302
Ventura COG	24,452	5,774	3,810	4,525	10,343
Westside Cities COG	19,273	5,976	3,645	3,546	6,106
Western Riverside COG	95,085	25,420	15,182	16,259	38,224

ALLOCATION BY LOCAL JURISDICTION

County	Jurisdiction	Total	Very-low income	Low income	Moderate income	Above-moderate income
Imperial	Brawley city	1426	399	210	202	615
Imperial	Calexico city	4868	1279	655	614	2320
Imperial	Calipatria city	151	36	21	16	78
Imperial	El Centro city	3442	1001	490	462	1489
Imperial	Holtville city	171	41	33	26	71

ALLOCATION BY LOCAL JURISDICTION

County	Jurisdiction	Total	Very-low income	Low income	Moderate income	Above-moderate income
Imperial	Imperial city	1601	704	346	294	257
Imperial	Unincorporated Imp	4301	1203	596	580	1922
Imperial	Westmorland city	33	8	6	4	15
Los Angeles	Agoura Hills city	318	127	72	55	64
Los Angeles	Alhambra city	6825	1774	1036	1079	2936
Los Angeles	Arcadia city	3214	1102	570	605	937
Los Angeles	Artesia city	1069	312	168	128	461
Los Angeles	Avalon city	27	8	5	3	11
Los Angeles	Azusa city	2651	760	368	382	1141
Los Angeles	Baldwin Park city	2001	576	275	263	887
Los Angeles	Bell city	229	43	24	29	133
Los Angeles	Bell Gardens city	503	100	29	72	302
Los Angeles	Bellflower city	3735	1015	488	553	1679
Los Angeles	Beverly Hills city	3104	1008	680	602	814
Los Angeles	Bradbury city	41	16	9	9	7
Los Angeles	Burbank city	8772	2553	1418	1409	3392
Los Angeles	Calabasas city	354	132	71	70	81
Los Angeles	Carson city	5618	1770	913	875	2060
Los Angeles	Cerritos city	1908	679	345	332	552
Los Angeles	Claremont city	1711	556	310	297	548
Los Angeles	Commerce city	247	55	22	39	131
Los Angeles	Compton city	1004	235	121	131	517
Los Angeles	Covina city	1910	614	268	281	747
Los Angeles	Cudahy city	393	80	36	53	224
Los Angeles	Culver City city	3341	1108	604	560	1069
Los Angeles	Diamond Bar city	2521	844	434	437	806
Los Angeles	Downey city	6525	2079	946	915	2585
Los Angeles	Duarte city	888	269	145	137	337
Los Angeles	El Monte city	8502	1797	853	1233	4619
Los Angeles	El Segundo city	492	189	88	84	131
Los Angeles	Gardena city	5735	1485	761	894	2595
Los Angeles	Glendale city	13425	3439	2163	2249	5574
Los Angeles	Glendora city	2276	735	386	388	767
Los Angeles	Hawaiian Gardens ci	331	61	44	46	180
Los Angeles	Hawthorne city	1734	445	204	249	836
Los Angeles	Hermosa Beach city	558	232	127	106	93
Los Angeles	Hidden Hills city	40	17	8	9	6
Los Angeles	Huntington Park city	1605	264	196	243	902
Los Angeles	Industry city	17	6	4	2	5
Los Angeles	Inglewood city	7439	1813	955	1112	3559
Los Angeles	Irwindale city	119	36	11	17	55
Los Angeles	La Cañada Flintridge	612	252	135	139	86

ALLOCATION BY LOCAL JURISDICTION

County	Jurisdiction	Total	Very-low income	Low income	Moderate income	Above-moderate income
Los Angeles	La Habra Heights city	172	78	35	31	28
Los Angeles	La Mirada city	1962	634	342	320	666
Los Angeles	La Puente city	1929	544	275	275	835
Los Angeles	La Verne city	1346	414	239	223	470
Los Angeles	Lakewood city	3922	1296	637	653	1336
Los Angeles	Lancaster city	9023	2224	1194	1328	4277
Los Angeles	Lawndale city	2497	732	311	371	1083
Los Angeles	Lomita city	829	239	124	128	338
Los Angeles	Long Beach city	26502	7141	4047	4158	11156
Los Angeles	Los Angeles city	456643	115978	68743	75091	196831
Los Angeles	Lynwood city	1558	377	139	235	807
Los Angeles	Malibu city	79	28	19	17	15
Los Angeles	Manhattan Beach cit	774	322	165	155	132
Los Angeles	Maywood city	365	55	47	55	208
Los Angeles	Monrovia city	1670	519	262	254	635
Los Angeles	Montebello city	5186	1314	707	777	2388
Los Angeles	Monterey Park city	5257	1324	822	848	2263
Los Angeles	Norwalk city	5034	1546	759	658	2071
Los Angeles	Palmdale city	6640	1777	935	1004	2924
Los Angeles	Palos Verdes Estates	199	82	44	48	25
Los Angeles	Paramount city	364	92	43	48	181
Los Angeles	Pasadena city	9429	2747	1662	1565	3455
Los Angeles	Pico Rivera city	1024	299	146	149	430
Los Angeles	Pomona city	10558	2799	1339	1510	4910
Los Angeles	Rancho Palos Verdes	639	253	139	125	122
Los Angeles	Redondo Beach city	2490	936	508	490	556
Los Angeles	Rolling Hills city	45	20	9	11	5
Los Angeles	Rolling Hills Estates c	191	82	42	38	29
Los Angeles	Rosemead city	4612	1154	638	686	2134
Los Angeles	San Dimas city	1248	384	220	206	438
Los Angeles	San Fernando city	1795	461	273	284	777
Los Angeles	San Gabriel city	3023	846	415	466	1296
Los Angeles	San Marino city	397	149	91	91	66
Los Angeles	Santa Clarita city	10031	3397	1734	1672	3228
Los Angeles	Santa Fe Springs city	952	253	159	152	388
Los Angeles	Santa Monica city	8895	2794	1672	1702	2727
Los Angeles	Sierra Madre city	204	79	39	35	51
Los Angeles	Signal Hill city	517	161	78	90	188
Los Angeles	South El Monte city	577	131	64	70	312
Los Angeles	South Gate city	8282	2136	994	1173	3979
Los Angeles	South Pasadena city	2067	757	398	334	578
Los Angeles	Temple City city	2186	630	350	369	837

ALLOCATION BY LOCAL JURISDICTION

County	Jurisdiction	Total	Very-low income	Low income	Moderate income	Above-moderate income
Los Angeles	Torrance city	4939	1621	846	853	1619
Los Angeles	Unincorporated Los	90052	25648	13691	14180	36533
Los Angeles	Vernon city	9	5	4	0	0
Los Angeles	Walnut city	1293	427	225	231	410
Los Angeles	West Covina city	5346	1653	850	865	1978
Los Angeles	West Hollywood city	3933	1066	689	682	1496
Los Angeles	Westlake Village city	142	58	29	32	23
Los Angeles	Whittier city	3439	1025	537	556	1321
Orange	Aliso Viejo city	1195	390	214	205	386
Orange	Anaheim city	17453	3767	2397	2945	8344
Orange	Brea city	2365	669	393	403	900
Orange	Buena Park city	8919	2119	1343	1573	3884
Orange	Costa Mesa city	11760	2919	1794	2088	4959
Orange	Cypress city	3936	1150	657	623	1506
Orange	Dana Point city	530	147	84	101	198
Orange	Fountain Valley city	4839	1307	786	834	1912
Orange	Fullerton city	13209	3198	1989	2271	5751
Orange	Garden Grove city	19168	4166	2801	3211	8990
Orange	Huntington Beach ci	13368	3661	2184	2308	5215
Orange	Irvine city	23610	6396	4235	4308	8671
Orange	La Habra city	804	192	116	130	366
Orange	La Palma city	802	224	140	137	301
Orange	Laguna Beach city	394	118	80	79	117
Orange	Laguna Hills city	1985	568	353	354	710
Orange	Laguna Niguel city	1207	348	202	223	434
Orange	Laguna Woods city	997	127	136	192	542
Orange	Lake Forest city	3236	956	543	559	1178
Orange	Los Alamitos city	769	194	119	145	311
Orange	Mission Viejo city	2217	674	401	397	745
Orange	Newport Beach city	4845	1456	930	1050	1409
Orange	Orange city	3936	1067	604	677	1588
Orange	Placentia city	4398	1243	680	782	1693
Orange	Rancho Santa Marga	680	209	120	125	226
Orange	San Clemente city	982	282	164	188	348
Orange	San Juan Capistrano	1054	270	173	183	428
Orange	Santa Ana city	3137	606	362	545	1624
Orange	Seal Beach city	1243	258	201	239	545
Orange	Stanton city	1231	165	145	231	690
Orange	Tustin city	6782	1724	1046	1132	2880
Orange	Unincorporated Ora	10340	3107	1866	2006	3361
Orange	Villa Park city	296	93	60	61	82
Orange	Westminster city	9759	1881	1473	1784	4621

ALLOCATION BY LOCAL JURISDICTION

County	Jurisdiction	Total	Very-low income	Low income	Moderate income	Above-moderate income
Orange	Yorba Linda city	2415	765	451	457	742
Riverside	Banning city	1673	317	193	280	883
Riverside	Beaumont city	4210	1229	721	723	1537
Riverside	Blythe city	494	82	71	96	245
Riverside	Calimesa city	2017	495	275	379	868
Riverside	Canyon Lake city	129	43	24	24	38
Riverside	Cathedral City city	2549	540	353	457	1199
Riverside	Coachella city	7886	1033	999	1367	4487
Riverside	Corona city	6088	1752	1040	1096	2200
Riverside	Desert Hot Springs c	3873	569	535	688	2081
Riverside	Eastvale City	3028	1145	672	635	576
Riverside	Hemet city	6466	812	732	1174	3748
Riverside	Indian Wells city	382	117	81	91	93
Riverside	Indio city	7812	1793	1170	1315	3534
Riverside	Jurupa Valley City	4497	1207	749	731	1810
Riverside	La Quinta city	1530	420	269	297	544
Riverside	Lake Elsinore city	6681	1878	1099	1134	2570
Riverside	Menifee city	6609	1761	1051	1106	2691
Riverside	Moreno Valley city	13627	3779	2051	2165	5632
Riverside	Murrieta city	3043	1009	583	545	906
Riverside	Norco city	454	145	85	82	142
Riverside	Palm Desert city	2790	675	460	461	1194
Riverside	Palm Springs city	2557	545	408	461	1143
Riverside	Perris city	7805	2030	1127	1274	3374
Riverside	Rancho Mirage city	1746	430	318	328	670
Riverside	Riverside city	18458	4861	3064	3139	7394
Riverside	San Jacinto city	3392	800	465	560	1567
Riverside	Temecula city	4193	1359	801	778	1255
Riverside	Unincorporated Rive	40647	10371	6627	7347	16302
Riverside	Wildomar city	2715	798	450	434	1033
San Bernardino	Adelanto city	3763	394	566	651	2152
San Bernardino	Apple Valley town	4290	1086	600	747	1857
San Bernardino	Barstow city	1520	172	228	300	820
San Bernardino	Big Bear Lake city	212	50	33	37	92
San Bernardino	Chino city	6978	2113	1284	1203	2378
San Bernardino	Chino Hills city	3729	1388	821	789	731
San Bernardino	Colton city	5434	1318	668	906	2542
San Bernardino	Fontana city	17519	5109	2950	3035	6425
San Bernardino	Grand Terrace city	630	189	92	106	243
San Bernardino	Hesperia city	8155	1921	1231	1409	3594
San Bernardino	Highland city	2513	619	409	471	1014
San Bernardino	Loma Linda city	2051	523	311	352	865

ALLOCATION BY LOCAL JURISDICTION

County	Jurisdiction	Total	Very-low income	Low income	Moderate income	Above-moderate income
San Bernardino	Montclair city	2593	698	383	399	1113
San Bernardino	Needles city	87	10	11	16	50
San Bernardino	Ontario city	20854	5640	3286	3329	8599
San Bernardino	Rancho Cucamonga	10525	3245	1920	2038	3322
San Bernardino	Redlands city	3516	967	615	652	1282
San Bernardino	Rialto city	8272	2218	1206	1371	3477
San Bernardino	San Bernardino city	8123	1415	1097	1448	4163
San Bernardino	Twentynine Palms ci	1047	231	127	185	504
San Bernardino	Unincorporated San	8832	2179	1360	1523	3770
San Bernardino	Upland city	5686	1584	959	1013	2130
San Bernardino	Victorville city	8165	1735	1136	1504	3790
San Bernardino	Yucaipa city	2866	708	493	511	1154
San Bernardino	Yucca Valley town	750	155	117	145	333
Ventura	Camarillo city	1376	353	244	271	508
Ventura	Fillmore city	415	73	61	72	209
Ventura	Moorpark city	1289	377	233	245	434
Ventura	Ojai city	53	13	9	10	21
Ventura	Oxnard city	8549	1840	1071	1538	4100
Ventura	Port Hueneme city	125	26	16	18	65
Ventura	San Buenaventura (\	5312	1187	865	950	2310
Ventura	Santa Paula city	657	102	99	121	335
Ventura	Simi Valley city	2793	749	493	518	1033
Ventura	Thousand Oaks city	2621	735	494	532	860
Ventura	Unincorporated Ven	1262	319	225	250	468

**The 6th Cycle RHNA Allocation Plan was approved by HCD on 3/22/21.*

conditions. This Plan includes a transfer from the County of Orange to the City of Santa Ana, which was approved by the SCAG Regional Council on 6/3/21, and a transfer from the County of Orange to the City of Placentia, which was approved on 7/1/21.

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

State Historic Preservation Officer Project Determination Letter

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

August 6, 2026

Refer to HUD_2026_0422_002

Norma Lopez
Senior Program Coordinator
Community Development Department
City of South Gate
8650 California Avenue
South Gate, CA 90280-3004

Re: 9001-9019 Long Beach Boulevard Habitat for Humanity Project at 9001-9019 Long Beach Boulevard, South Gate, CA

Dear Ms. Lopez:

The State Historic Preservation Officer (SHPO) received the consultation submittal from the City of South Gate for the above-referenced undertaking on April 17, 2026, with follow-up submittals on May 25, 2026, and July 20, 2026. As the Responsible Entity (RE) for the US Department of Housing and Urban Development (HUD), the City of South Gate is initiating consultation with SHPO for review and comment pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations found at 36 CFR Part 800. The regulations and advisory materials are located at www.achp.gov.

Undertaking

The 9001-9019 Long Beach Boulevard Habitat for Humanity Project (Undertaking) proposes demolition of all existing on-site structures and improvements and the construction of a common interest subdivision comprising 14 two- and three-story attached townhomes in four buildings. The townhomes will total 18,656 square feet of building area, with a combined footprint of 9,772 square feet. Building heights will not exceed 33 feet 2 inches to the top of the parapet. Units will range from 1,100 to 1,372 square feet and will be sold to qualified low-income homebuyers at affordable housing costs. Of the 14 units, 13 will be three-story homes with three bedrooms and 2.5 bathrooms; one unit will be two-story, handicap accessible, with two bedrooms and two bathrooms. Common areas include guest parking, community green space, benches, and perimeter/interior landscaping.

The Undertaking will be funded with $225,000 in Community Development Block Grant (CDBG) funds. Activities include demolition, site clearance, and abatement of any lead-based paint or asbestos in compliance with federal, state, and local regulations. All debris will be properly disposed of at approved facilities.

Area of Potential Effects (APE)

The City of South Gate has delineated the Area of Potential Effects for the Undertaking to include the project site and all adjacent parcels.

- Pursuant to 36 CFR § 800.4(a)(1), I have **no comment** on the City of South Gate's delineated APE.

Identification of Historic Properties

The City of South Gates's efforts to identify and consider historic properties include records search at the South Central Coastal Information Center on November 17, 2022; a Sacred Lands File search by the Native American Heritage Commission; review historic aerial photographs and maps; archival research; a pedestrian survey of the APE on November 23, 2022; and evaluation of the historic-period building at 9019 Long Beach Boulevard in South Gate.

The SCCIC records search identified eleven previously conducted cultural resource studies that were completed within a 0.5-mile radius of the APE. None of which intersects the APE. Five previously identified cultural resources within 0.5-mile of the APE. One resource is a segment of the Union Pacific Railroad, which has not been unevaluated for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resource (CRHR) (P-19-186110). Two other resources (P-19-188281 and P-19-188282) are historic-period buildings that have been found ineligible for listing in the NRHP and CRHR, as well as locally, through survey evaluation. Another resource is a historic-period steel water tank that has been found ineligible for listing in the NRHP or CRHR, as well as locally through survey evaluation (P-19-188838). The remaining resource is a historic period two-story commercial building, originally a restaurant, that has been found eligible for listing in the CRHR under Criterion 3 (P-13-188398). No resources have been documented within or adjacent to the APE.

- In accordance with 36 CFR § 800.4(c)(2), the City of South Gate has determined that the property located at 9019 Long Beach Boulevard in South Gate is not eligible for listing in the National Register of Historic Places (NRHP), either individually or as part of a historic district. Based on review of the submitted documentation, SHPO **concurs** with this determination.

Consultation

The City of South Gate received negative results from the Sacred Lands File (SLF) search by the Native American Heritage Commission on December 8, 2022. In anticipate of the results of the SLF search, the City initiated contact with seven Indian tribes from a list of contacts, based on prior project in the immediate area, on November 16, 2022. The City made follow-up calls and emails to unresponsive tribes on November 30, 2022.

On November 30, 2022, the Torres Martinez Desert Cahuilla Indians responded requesting that the original consultation email be forwarded to another tribal contact and stated that the Tribe's cultural resources team would review the letter. No further response was received. On July 30, 2026, the City of South Gate re-initiated consultation with all tribes listed on the provided contact list from the NAHC. To date, no responses have been received and consultation is ongoing. On August 6, 2026, the City of South Gate initiated consultation with the South Gate Museum & Art Gallery and the Los Angeles County Library, Leland R. Weaver Library. No responses have yet been received and consultation is ongoing.

- Please be mindful that Indian tribes possess special expertise in assessing historic properties of religious and cultural significance not available to Office of Historic Preservation staff. The SHPO requests that the City of South Gate provide a summary of any views conveyed by Indian tribes or other individuals and organizations likely to have knowledge of, or concerns with historic properties in the project area, should they be submitted following receipt of this letter. In so doing, the SHPO reserves the right to resume Section 106 consultation and respond to new information, as necessary.

Finding of Effect
Pursuant to 36 CFR § 800.5(b), SHPO does not object to the City of South Gates's finding of *No Adverse Effect* for the HUD-funded 9001-9019 Long Beach Boulevard Habitat for Humanity Project at 9001-9019 Long Beach Boulevard in South Gate.

SHPO appreciates the City of South Gates's consideration of historic properties in the project planning process. If you have questions, please contact Chris Wendt, Historian II, with the Local Government & Project Review Unit at chris.wendt@parks.ca.gov.

Sincerely,



Julianne Polanco
State Historic Preservation Officer

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

City of South Gate Response to SHPO Request, prepared by South Environmental

Community Development Department
8650 California Avenue, South Gate, CA 90280-3004
PP: (323)535-9335 F: (323)563-9571
www.cityofsouthgate.org

August 6, 2026

Julianne Polanco
State Historic Preservation Officer
Department of Parks and Recreation Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816-7100

RE: Response to SHPO Request for the 9001-9019 Long Beach Boulevard Habitat for Humanity Project, City of South Gate, Los Angeles County, California

Dear Ms. Polanco:

South Environmental was retained to respond to comments on the project's Area of Potential Effects (APE) map from the State Historic Preservation Officer (SHPO) dated June 9, 2026 (Reference No. HUD_2025_1216_004). Following direction received from SHPO during Microsoft Teams meetings on June 30 and August 4, 2026, South Environmental prepared the following items as part of this memorandum: an updated APE map for the project (Attachment A) that includes the project site and all adjacent properties; the dates of construction for all properties within the APE; an assumption of National Register of Historic Places (NRHP) eligibility for the six properties adjacent to the project site within the APE; and an analysis of potential adverse effects to historic properties in accordance with 36 Code of Federal Regulations (CFR) 800.5(a)(1).

This memorandum was completed by South Environmental Principal Architectural Historian Sarah Corder, MFA who meets the Secretary of the Interior's Professional Qualification Standards for architectural history and history.

Properties within the APE

South Environmental utilized the ParcelQuest online property information system on July 13, 2026, to obtain dates of construction for the project site (Map ID# 1) and all adjacent properties (Map ID#s 2-7) (see Table 1 below). The project site is identified as 9001-9019 Long Beach Boulevard (Assessor's Parcel's Numbers [APNs] 6204-025-900, 6204-025-901, and 6204-025-902) and contains one (1) building identified as 9019 Long Beach Boulevard that was constructed in 1941. The property within the project site was previously evaluated by PaleoWest, LLC in 2023 and found not eligible under all NRHP designation criteria.[1] Information on all properties within the APE, including a brief description

[1] PaleoWest, LLC; "Cultural Resources Assessment for the 9001-9019 Long Beach Boulevard Housing Project, South Gate, Los Angeles County, California" (Prepared for the De Novo Planning Group, January 2023).

of all adjacent properties, is provided below. Photographs of all adjacent properties are included as Attachment B.

Table 1. Properties within the APE

APE Map ID#	Street Address	APN(s)	Built Date	Description
1	9019 Long Beach Boulevard	6204-025-900, 6204-025-901, 6204-025-902	1941	Located within the project site. Not eligible for the NRHP based on evaluation from PaleoWest, LLC in 2023.[2]
2	2826-2830 Willow Place	6204-025-042	1929	Located adjacent to the project site; Mission Revival style attached bungalow court; two rectangular, one-story buildings; arranged around a narrow central courtyard; garage at the rear; flat roof with Mission style parapet; stucco exterior; clay tile-clad door and window hoods.
3	2832 Willow Place	6204-025-041	1925	Located adjacent to the project site; one single-family residence and one duplex; one-story, Mission Revival style; stucco exterior; flat roof with a parapet wall capped with clay tile; a wide porch with an arched opening and a Mission style parapet.
4	2823 Glenwood Place	6204-025-031	1924	Located adjacent to the project site; one-story, single-family residence; Craftsman style; irregular floor plan, side-gabled roof with clipped gables; stucco exterior; small stoop covered with a projecting gable supported by wooden triangular knee braces.
5	2831 Glenwood Place	6204-025-032	1940	Located adjacent to the project site; one-story; single-family residence with detached garage; Minimal Traditional style; stucco exterior; multi-plane hipped roof; small front stoop covered by a shed roof supported by wooden posts and lattice; focal bay window.
6	2835 Glenwood Place	6204-025-038	1959	Located adjacent to the project site; altered two-story; multi-family; L-shaped floor plan; hipped roof with overhanging eaves; stucco exterior; tall, metal framed windows.
7	9029 Long Beach Boulevard	6204-025-037	1927	Located adjacent to the project site; two-story, early brick commercial; flat roof with parapet; exterior cladding including a brick first story and stucco second story with corner quoin detailing; shed roof over the first story clad with wood shingles; glass storefronts with metal security bars.

Historic Properties Identified

At the direction of the SHPO, the following six adjacent properties are assumed eligible for the NRHP for the purposes of this project: 2826-2830 Willow Place (Map ID# 2); 2832 Willow Place (Map ID# 3);

[2] PaleoWest, LLC; "Cultural Resources Assessment for the 9001-9019 Long Beach Boulevard Housing Project, South Gate, Los Angeles County, California" (Prepared for the De Novo Planning Group, January 2023).

2823 Glenwood Place (Map ID# 4); 2831 Glenwood Place (Map ID# 5); 2835 Glenwood Place (Map ID# 6); and 9029 Long Beach Boulevard (Map ID #7).

NRHP Eligibility: The six adjacent properties are assumed eligible for the NRHP under Criterion A at the individual level of significance. The properties consist of five residential buildings constructed between the mid-1920s and the late 1950s, and one commercial building developed during the 1920s. These resources are representative of the City South Gate's (City) rapid early- to mid-twentieth-century development following the City's incorporation in 1923. During its early years, the City evolved from a predominantly agricultural community into a large urban area with significant industrial and manufacturing facilities. The residential and commercial buildings within the project APE reflect this important period of the City's economic expansion, driven by manufacturing and the automotive industry, as well as the significant residential growth that accompanied this early growth and the population boom during the City's post-World War II period of development.

Application of the Criteria of Adverse Effect

As stated in 36 CFR 800.5(a)(1), Criteria of Adverse Effect:

> An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

Examples of adverse effects on historic properties include, but are not limited to, the following (36 CFR 800.5(a)(2)). Only the examples in bold (**iv**, and **v**) are applicable to the current project:

(i) Physical destruction of or damage to all or part of the property;

(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;

(iii) Removal of the property from its historic location;

(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;

(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

The following analysis applies the applicable Criteria of Adverse Effect to the six adjacent properties utilizing the bolded examples above **(iv, v)**.

Analysis of Potential Adverse Effects

Potential Effects of Proposed Project

No work would occur within the boundaries of the six properties adjacent to the project site within the APE and no physical changes are proposed. These properties were included in the APE in consideration of potential indirect effects resulting from the adjacent construction of a multi-story building that would be visible from these properties.

Changes to a property's use or physical features:

No physical changes are proposed to the six adjacent properties or their historic function as residential and commercial properties **(Example iv)**. The six properties will retain the character, use, and setting that contribute to their historic significance. They will continue to reflect their association with the City's early-to-mid twentieth century development boom.

Introduction of visual, atmospheric or audible elements:

The project would not introduce any visual, atmospheric, or audible elements that diminish the integrity of the six adjacent properties **(Example v)**. The six adjacent properties and the surrounding area are comprised of buildings from different periods of development and of varying heights, massing, scale, and architectural styles. The proposed project will utilize height limitations and complementary scale and will not be physically connected to the adjacent historic properties. With the utilization of modern materials, limited scale and density, the proposed new construction ensures that adverse effects are avoided.

Finding of No Adverse Effect

The six historic properties immediately adjacent to the project site will not be adversely affected by the proposed project. The project does not propose any physical work within the boundaries of these properties, and will not involve demolition, alteration, relocation, or any physical changes to the features of these historic properties. As a result, the project will not directly affect the physical characteristics or setting that contribute to the properties' historical significance. In addition, the scale,

massing, and volume of the proposed development are compatible with the existing built environment and will not introduce visual, spatial, or contextual changes that would diminish the adjacent historic properties' integrity of setting or association. The surrounding area has historically consisted of a mixed-use urban environment with a variety of residential, commercial, and industrial development, and the proposed project does not represent a new or incompatible use or development pattern within the surrounding context. In total, the project will not alter the historic properties, and they will continue to convey their historical significance under NRHP Criterion A. As such, the project will result in **no adverse effects to historic properties**.

Should you have any questions regarding this memorandum, please do not hesitate to contact the City of South Gate at caverell2@sogate.org or (323) 563-3355.

Sincerely,

Carol A. Averell

Carol Averell,
Housing Manager

Attachment A: Area of Potential Effects Map
Attachment B: Photographs

Attachment A: Area of Potential Effects Map



Source: ESRI Aerial Map 2026

9001-9019 Long Beach Boulevard Habitat for Humanity Project

Figure 1. Area of Potential Effects

0 50 100 Feet

N

A

Project Site

Project APE

APE Properties

1. 9019 Long Beach Blvd. (1941)
2. 2826-2830 Willow Place (1929)
3. 2832 Willow Place (1925)
4. 2823 Glenwood Place (1924)
5. 2831 Glenwood Place (1940)
6. 2835 Glenwood Place (1959)
7. 9029 Long Beach Blvd. (1927)

Scale: 1:1,000

SOUTH ENVIRONMENTAL

Attachment B: Photographs

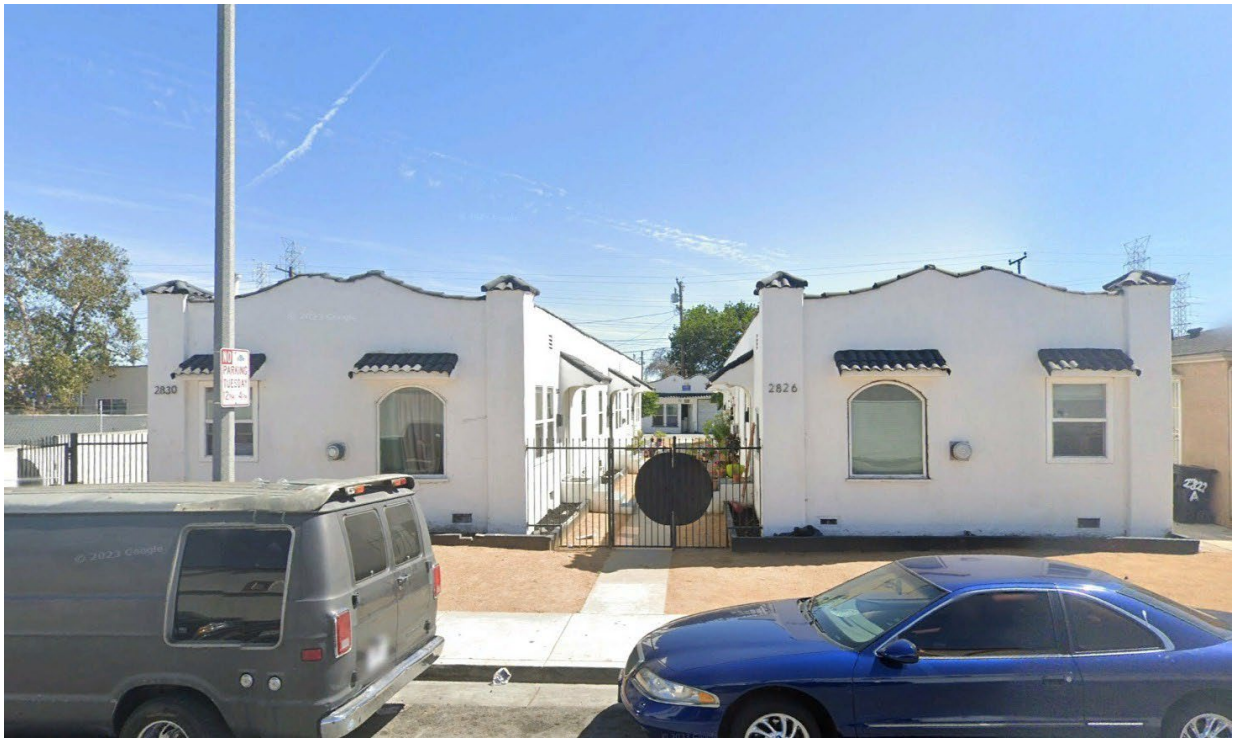


Image 1: 2826-2830 Willow Place (Map ID# 2), north elevation, view south.



Image 2: 2832 Willow Place (Map ID# 3), north elevation, view south.



Image 3: 2823 Glenwood Place (Map ID#4), south elevation, view north.



Image 4: 2831 Glenwood Place (Map ID# 5), south and west elevations ,view northeast.



Image 5: 2835 Glenwood Place (Map ID# 6), south and east elevations, view northwest.

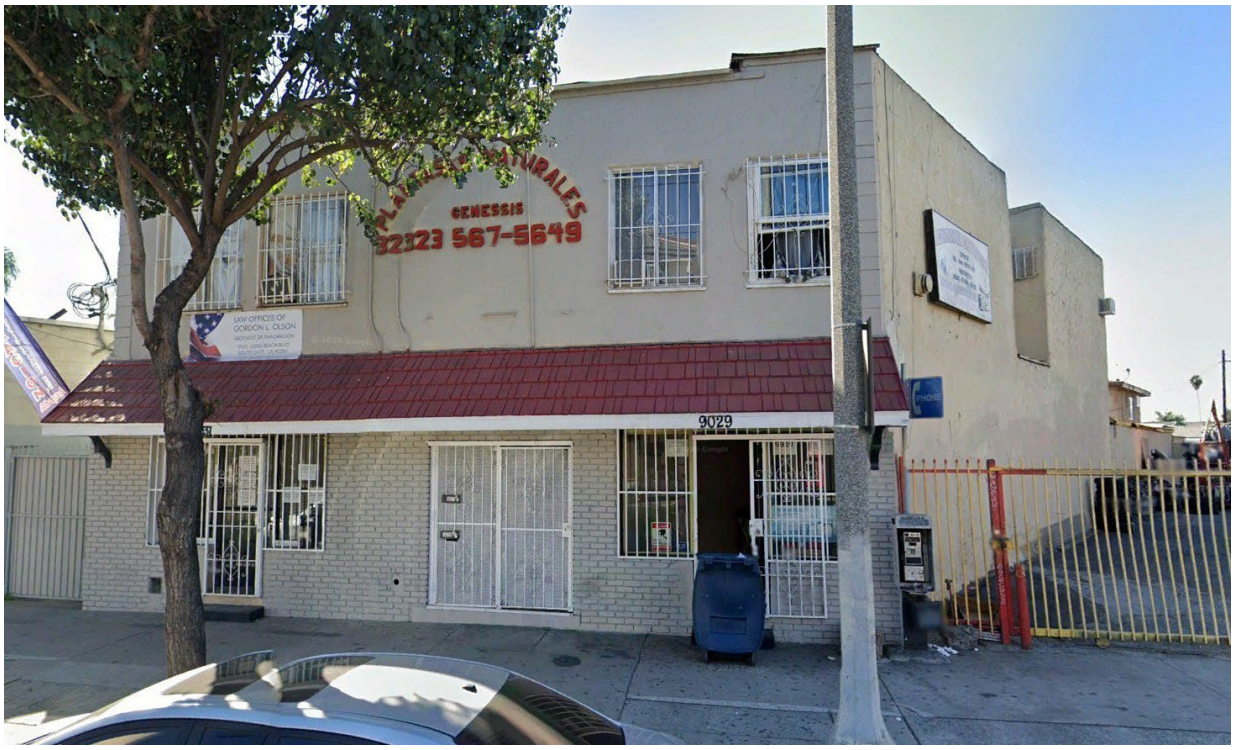


Image 6. 9029 Long Beach Boulevard (Map ID# 7), east elevation, view west.

9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix I
Statutory Checklist Reference Documents

City of South Gate Tribal Consultation Tracking Log

AB 52 Tribal Consultation Tracking Log — 9001-9019 Long Beach Boulevard Habitat For Humanity Project

Contacts per Native American Heritage Commission (NAHC) Native American Contact List, Los Angeles County, dated 7/16/2026. Record: PROJ-2026-003712.

Fields below (Date Sent, Follow-Up, checkmarks, Response) are blank for staff to complete as consultation proceeds. Verify all contact information against the current NAHC list before mailing.

Tribe Name	Contact Name	Title	Mailing Address	Phone	Email Address	Date Letter Sent	Sent via U.S. Mail	Sent via Email	Follow-Up Due (30 Days)\	Follow-Up Sent	Response Received	Response Date	Notes
Cahuilla Band of Indians	BobbyRay Esparza	Cultural Director	52701 CA Highway 371, Anza, CA 92539	(951) 763-5549	besparza@cahuilla-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Cahuilla Band of Indians	Anthony Madrigal	Tribal Historic Preservation Officer	52701 CA Highway 371, Anza, CA 92539	(951) 763-5549	anthonymad2002@gmail.com	07/30/2026	✓	✓	08/29/2026				
Cahuilla Band of Indians	Erica Schenk	Chairperson	52701 CA Highway 371, Anza, CA 92539	(951) 590-0942	chair@cahuilla-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Gabrieleno Band of Mission Indians - Kizh Nation	Andrew Salas	Chairperson	P.O. Box 393, Covina, CA 91723	(844) 390-0787	admin@gabrielenoindians.org	07/30/2026	✓	✓	08/29/2026		7/30/2026		Confirmed consultation for August 27, 2026 at 1:00 p.m.
Gabrieleno Band of Mission Indians - Kizh Nation	Christina Swindall Martinez	Secretary	P.O. Box 393, Covina, CA 91723	(844) 390-0787	admin@gabrielenoindians.org	07/30/2026	✓	✓	08/29/2026				
Gabrieleno/Tongva San Gabriel Band of Mission Indians	Anthony Morales	Chairperson	P.O. Box 693, San Gabriel, CA 91778	(626) 483-3564	GTTribalcouncil@aol.com	07/30/2026	✓	✓	08/29/2026				
Gabrielino Tongva Indians of California Tribal Council	Robert Dorame	Chairperson	P.O. Box 490, Bellflower, CA 90707	(562) 761-6417	gtongva@gmail.com	07/30/2026	✓	✓	08/29/2026				
Gabrielino Tongva Indians of California Tribal Council	Christina Conley	Cultural Resource Administrator	P.O. Box 941078, Simi Valley, CA 93094	(626) 407-8761	christina.marsden@alumni.usc.edu	07/30/2026	✓	✓	08/29/2026				
Gabrielino/Tongva Nation	John Blunt	Councilman / Cultural Resource Director	13191 Crossroads Parkway North, Suite 375, City of Industry, CA 91746	(626) 640-4034	jcblunt@gabrielino-tongva.com	07/30/2026	✓	✓	08/29/2026				
Gabrielino-Tongva Tribe	Linda Candelaria	Chairperson	73465 Royal Palm Dr. #1, Palm Desert, CA 92260	(626) 676-1184	gabrielinotongva1@gmail.com	07/30/2026	✓	✓	08/29/2026				
Gabrielino-Tongva Tribe	Sam Dunlap	Cultural Resource Director	P.O. Box 3919, Seal Beach, CA 90740	(909) 262-9351	tongvatcr@gmail.com	07/30/2026	✓	✓	08/29/2026				
Morongo Band of Mission Indians	Lena Broderick	Executive Assistant to Tribal Chairman	12700 Pumarra Road, Banning, CA 92220	(951) 755-5110	lbroderick@morongo-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Morongo Band of Mission Indians	Bernadette Ann Brierty	Tribal Historic Preservation Officer	12700 Pumarra Road, Banning, CA 92220	(951) 663-2842	abrierty@morongo-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Morongo Band of Mission Indians	Charles Martin	MBMI Chairman	12700 Pumarra Road, Banning, CA 92220	(951) 755-5110	chairman@morongo-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Santa Rosa Band of Cahuilla Indians	Mercedes Estrada	Cultural Director	P.O. Box 391820, Anza, CA 92539	(951) 659-2700	mestrada@santarosa-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Santa Rosa Band of Cahuilla Indians	Steven Estrada	Tribal Chairman	P.O. Box 391820, Anza, CA 92539	(951) 659-2700	sestrada@santarosa-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Santa Rosa Band of Cahuilla Indians	Vanessa Minott	Tribal Administrator	P.O. Box 391820, Anza, CA 92539	(951) 659-2700	vminott@santarosa-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Soboba Band of Luiseno Indians	Jessica Valdez	Cultural Resource Specialist	P.O. Box 487, San Jacinto, CA 92581	(951) 663-6261	jvaldez@soboba-nsn.gov	07/30/2026	✓	✓	08/29/2026				
Soboba Band of Luiseno Indians	Joseph Ontiveros	Tribal Historic Preservation Officer	P.O. Box 487, San Jacinto, CA 92581	(951) 663-5279	jontiveros@soboba-nsn.gov	07/30/2026	✓	✓	08/29/2026				
	South Gate Museum & Art Gallery	South Gate Museum & Art Gallery	8680 California Avenue, South Gate CA 90280	(323)563-5755	tdelarosa@sogate.org	8/6/2026		✓	09/05/2026				
	Amy Luu	Los Angeles County Library, Leland R. Weaver Library	4035 Tweedy Blvd., South Gate CA 90280	(323)567-8853		8/6/2026	✓		09/05/2026				