EDCO Signal Hill Recycling and Transfer Facility

Conditional Use Permit 09-01 Modification: Addendum to 2009 Final EIR

5 June 2024

State Clearinghouse # 2008081009

Exhibit B

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Acronyms and Abbreviations

AB	Assembly Bill
AF	Acre-feet
AQMP	Air Quality Management Plan
BACT	Best available control technology
Bgs	Below ground surface
BMP	Best management practice
CAAQS	California ambient air quality standards
CARB	California Air Resources Board
CalEPA	California Environmental Protection Agency
CalGEM	California Geologic Energy Management Division
CAL FIRE	California Department of Fire and Forestry
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH_4	Methane
CNEL	Community noise equivalent level
CNPS	California Native Plant Survey
CO	Carbon monoxide
CO_2	Carbon dioxide
CUP	Conditional use permit
CWA	Clean Water Act
dBA	A-weighted decibels
dB	decibels
DOT	Department of transportation
DPM	Diesel particulate matter
°F	Degrees Fahrenheit
EIR	Environmental impact report
ESA	Endangered Species Act
FHWA	Federal Highway Administration
FTA	Federal Transportation Administration
GhG	Greenhouse gas
GWP	Global warming potential
GWh	Gigawatt hours
HAPs	Hazardous air pollutants
HFC	hydrofluorocarbons
HMBP	Hazardous materials business plan
Hp	horsepower
HRA	Health risk assessment
HSC	Health and Safety Code
Kwh	Kilowatt hours
LCFS	Low carbon fuel standard
LEA	Lead Enforcement Agency
L_{dn}	Day Night Sound Level
Leq	Average sound level
Lmax	Maximum sound level
LOS	Level of service
LST	Localized significance thresholds
LTS	Low temperature separation
MATES	Multiple air toxics exposure stud
MBTA	Migratory Bird Treaty Act
MCL	Maximum contaminant level

MMT	Million metric tons
MND	Mitigated negative declaration
MS4	Municipal separate stormwater system
$MTCO_2e$	Metric tons carbon dioxide equivalent
MW	Megawatt
MWh	Megawatt hours
NAAQS	National ambient air quality standards
NPDES	National Pollutant Discharge Elimination System
NAHC	Native American Heritage Commission
NF_3	Nitrogen trifluoride
NHPA	National Historic Preservation Act
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxides
N_2O	Nitrous oxide
NOP	Notice of preparation
NRHP	National Register of Historic Places
O_3	Ozone
Pb	Lead
PFC	Perfluorocarbons
PID	Photoionization detector
PM	Particulate matter
$PM_{2.5}$	Particulate matter less than 2.5 microns
PM_{10}	Particulate matter less than 10 microns
PPV	Peak particle volume
PRC	Public Resources Code
PSD	Prevention of significant deterioration
SB	Senate bill
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SO_x	Sulfur oxides
SPCC	Spill prevention containment and countermeasures
SSC	Species of special concern
SUSMP	Standard Urban Storm Water Mitigation Plan
SWFP	Solid Waste Facility Permit
SWPPP	Stormwater pollution prevention program
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminants
TDS	Total dissolved solids
TPD	Tons per day
UIC	Underground injection control
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle miles traveled
VOC	Volatile organic compounds
VRM	Visual resources manual
WDR	Waste discharge requirements
WRD	Water replenishment district

Environmental Summary Form

Project Title: Conditional Use Permit 09-01 Modification: Addendum to 2009 Final EIR

Lead Agency Name and Address:
The City of Signal Hill
2175 Cherry Avenue
Signal Hill, CA 90755

Contact Person and Phone Number:
Ms. Colleen Doan
Community Development Director
Signal Hill Community Development
(562) 989-7344

Project Location:
2755 California Ave.
Signal Hill, CA 90755

The approximately 3.75-acre Project Site is at the northwest corner of California Avenue and Patterson Street in the City of Signal Hill. **Figure 2.1-1** and **Figure 2.1-2** provide a Project Vicinity Map and a Regional Location Map, respectively. The existing EDCO Transfer Facility is the entire block bounded by Patterson Street to the south, California Avenue to the east, and the 28th Street and Olive Avenue rights-of-way (unimproved) to the north and west, respectively.

Project Sponsor's Name and Address:
EDCO Transport Services LLC
224 S. Las Posas Road
San Marcos, CA 92078

Zoning Designation: General Industrial (SP-19) Specific Plan

Description of Project: The City of Signal Hill (City) is considering a modification to Condition 3 of the existing Conditional Use Permit (CUP) 09-01 to allow for a proposed increase in the maximum permitted level of waste that may be processed at the EDCO recycling and transfer facility (hereafter referred to as the "Facility"). The existing weight limit specified in Condition 3 is 1,500 tons per day (tpd), and EDCO proposes to accept an additional 1,000 tpd within the existing footprint of the Facility, raising the total accepted to 2,500 tpd. The Facility operated from November 2020 through April 2024 with the 2,500 tpd limit under emergency waivers from the Lead Enforcement Agency (LEA, Los Angeles County Department of Health) resulting from the Coronavirus pandemic and recent winter storms. The requested modification to CUP Condition 3 would make this tonnage increase allowed by the emergency waivers to be permanent for the duration of the CUP. The Facility has a built capacity of 6,336 tpd and the tipping floor can receive and store up to 3,644 tons of material. Since the design elements allow a significantly higher capacity than what is existing or proposed, no physical changes to the Facility are necessary to accommodate the proposed permanent increase of allowable volume by an additional 1,000 tpd. In addition, The City is considering changes to Conditions 1 and 2 and amendments to the Development Agreement and Facilities Operations Agreement. This environmental analysis determines that an Addendum to the 2009 Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009) prepared by Signal Hill for the Facility is the appropriate level of CEQA review.

SECTION 1 Introduction

1.1 Project Overview

EDCO operates a materials transfer facility in the City of Signal Hill (City) under conditional use permit (CUP) # CP-09-01 (Attachment A), a Development Agreement, Facilities Operations Agreement, Franchise Agreement, Disposition and Development Agreement between the Redevelopment Agency and EDCO, and Covenants, conditions and restrictions ("CC&Rs"). The EDCO Facility accepts, processes, recovers and transfers mixed municipal waste. Any remaining residue from material recovery activities is sent to an appropriate permitted disposal facility. In 2009, the EDCO Recycling and Transfer Facility was the subject of a Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009) prepared by the City as part of the initial proposal and construction. The Facility became operational in 2012. Condition of Approval 3 of the CUP specifies that the maximum weight of material that the Facility may accept is 1,500 tpd.

Pursuant to §17210.3 of the California Code of Regulations (CCR) Title 14, the Local Enforcement Agency (LEA, County of Los Angeles Department of Public Health) issued emergency waivers of terms and conditions of the EDCO Facility to increase the weight accepted by 1,000 tpd (#19-AA-1112). The waivers were granted in 120-day increments on November 5, 2020, March 4, 2021, July 7, 2021, October 27, 2021, November 2021, March 4, 2022, June 28, 2022, October 19, 2022, and February 6, 2024. All of the waivers allowed the Facility to accept up to 2,500 tpd. The Emergency Waivers of Standards were granted to the EDCO Facility due to both recent winter storms and the Coronavirus pandemic, resulting in separate proclaimed State of Emergency as defined in 14 CCR Section 17210.1 (k). The requested modification to CUP Condition 3 would make this tonnage increase allowed by the waivers to be permanent for the duration of the CUP.

EDCO has requested the City amend CUP Condition 3 to allow EDCO to increase the maximum weight that may be accepted daily at the Facility by 1,000 tpd in order to handle surges effectively (the Project). As part of the Project, EDCO proposes to accept an additional 1,000 tpd within the existing footprint of the Facility, raising the total accepted to 2,500 tpd. The Project would not change the physical footprint of the Facility or any other operations because the built facility capacity is 6,336 tpd while the tipping floor[1] capacity is 3,644 tpd.

The City is also proposing minor changes to CUP Conditions 1 and 2 and amending the Development Agreement and Facilities Operations Agreement. All of the other documents remain unchanged, including the Franchise Agreement, which has expired and will not be renewed. The Franchise Agreement provided EDCO with an exclusive franchise to operate a materials recovery facility/transfer station within the City for a period of 15 years. EDCO has opted against requesting a new franchise, and instead is moving forward with the agreements as noted. CUP 09-01 does not have a term.

[1] The tipping floor is the refuse unloading area.

1.2 Basis for CEQA Addendum

Modification of the CUP Conditions 1, 2 and 3 and amending the Development Agreement and Facilities Operations Agreement by the City of Signal Hill is a discretionary decision that triggers compliance with the California Environmental Quality Act (CEQA). This document is an Addendum to the FEIR prepared for the EDCO Recycling and Transfer Facility in Signal Hill (State Clearinghouse No. 2008081009), which was certified by the City of Signal Hill in February 2009. In accordance with CEQA, this Addendum analyzes the Project and demonstrates that the change would not result in any new significant impacts not addressed in the FEIR, nor increase the significance level of any impacts identified in the FEIR. Specifically, Section 15164(a) of the CEQA Guidelines states that:

> *The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*

Section 15162 of the CEQA Guidelines requires a Subsequent EIR when an MND has already been adopted or an EIR has been certified and one or more of the following circumstances exist:

- Substantial changes are proposed in the Project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes occur with respect to the circumstances under which the Project is undertaken, which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
- The Project will have one or more significant effects not discussed in the previous EIR or negative declaration;
- Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the Project, but the Project proponents decline to adopt the mitigation measure or alternative; or
- Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the Project proponents decline to adopt the mitigation measure or alternative.

Likewise, California Public Resources Code (PRC) Section 21166 states that unless one or more of the following events occur, no subsequent or supplemental environmental impact report shall be required by the lead agency or by any responsible agency:

- Substantial changes are proposed in the project which will require major revisions of the environmental impact report;
- Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or
- New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.

As demonstrated by the analysis herein, the Project would not result in any new additional significant impacts, nor would it substantially increase the severity of previously anticipated significant impacts. In addition, the Project would not require any new mitigation measures other than those adopted with the FEIR. Based on this determination, the Project does not meet the requirements for preparation of a Subsequent or Supplemental EIR pursuant to Section 15162 of the CEQA Guidelines, and therefore an Addendum is the appropriate level of CEQA review.

1.3 Project Objective

EDCO has proposed an increase in the daily maximum tonnage allowed pursuant to its CUP due to continued growth in the region, including increased public disposal (self-haulers) and seasonal surges due to rainfall-soaked material being heavier than dry material. The imminent closure of the SERRF facility, similar in design to EDCO, in Long Beach is also likely to increase the number of self-haulers disposing of refuse in the vicinity. As such, upon closure of the SSERF, it is anticipated that a percentage of accepted materials that historically was delivered to the SERRF will instead be diverted to the Facility.

As such, the Project objectives are to:

- Expand the current weight limit for the Facility in response to the amount of material generated within the region, seasonal surges in the amount of waste generated, and wet season increases in the weight of truck loads with saturated refuse.
- Operate within the weight limits previously allowed by the Local Enforcement Agency (LEA) under emergency waiver for the duration of the CUP.
- Amend conditions 1 and 2 of the CUP to update the legal language and replace an obsolete construction related condition, respectively.
- Amend the Development Agreement and Facilities Operations Agreement to reflect the increase in allowable tpd, and to include the new formula for calculating host fees, in addition to other minor changes to these agreements.

As lead agency, the City is required to respond to EDCO's request for CUP modification for greater tonnage limits based on the appropriate level of CEQA review.

1.4 Purpose of the Environmental Review

CEQA applies to projects initiated by, funded by, or requiring discretionary approvals from California state or local government agencies. Approval of conditional use permits is a discretionary decision by the City of Signal Hill City Council in accordance with Section 20.08.050 of the City of Signal Hill Municipal Code. As a proposal which requires discretionary approval from the City, the Project constitutes a "project" as defined by CEQA (California Public Resources Code [PRC] Section 21000 et seq.). The City of Signal Hill has prepared this environmental analysis to support the determination that an Addendum is the appropriate level of CEQA review.

1.5 Lead Agency

CEQA Guidelines Section 15367 states that a Lead Agency is "the public agency which has the principal responsibility for carrying out or approving a project." The City of Signal Hill is the primary permitting agency and governmental body responsible for approval and ongoing oversight of the Project and therefore serves as the lead agency responsible for compliance with CEQA. The City of Signal Hill has the authority to use this Environmental Analysis as the basis for this Addendum to the 2009 FEIR and approve the requested increase in accepted tonnage under CUP 09-01. As lead agency, the City would continue to ensure that EDCO's operations remain in compliance with the requirements of the CUP. If approved, the City would modify the Conditional Use Permit Approved based on the CUP (Exhibit A) Condition of Approval 3, which specifies the allowed tonnage per day.

1.6 Responsible Agencies and Compliance Status

Responsible agencies in CEQA include all public agencies, besides the lead agency, with discretionary permitting authority over the Project. The operation of this Facility requires a Solid Waste Facility Permit (SWFP) issued from the LEA. The City has designated the County of Los Angeles, Department of Public Health as its LEA. The Project would require a revision to the operating permit, which is a discretionary action subject to CEQA. The permit modification also requires concurrence from the State of California Department of Resources Recycling and Recovery (CalRecycle). This current and valid operating permit, 19-AA-1112 (Attachment B), enforced by the LEA, serves as the local regional regulatory arm of CalRecycle.

The LEA is responsible for the review, issuance of permits, and the monthly inspection of solid waste facilities under the SWFP process. In addition to the monthly inspections, once the SWFP is issued, the Facility is also subject to a permit review every five years. Any violations of the SWFP, or any of the permit conditions would be noted and citations issued. The LEA has the right to require modifications to the Facility operation to remedy any identified problems and may revoke the SWFP if just cause is found. The LEA inspects for such conditions as noise, odor, dust, traffic, vectors, and hazardous materials. The LEA has not issued violations to EDCO and has not required modifications to Facility operations.

In order for the LEA and CalRecycle to review a proposed revision to the existing SWPF permit application, the California Code of Regulations 27 CCR 21570 requires the following, at a minimum, be completed and submitted by EDCO to the LEA:

- Transfer Processing Report (TPR)
- Conformance with CUP 09-01

The TPR will be provided to the LEA in conjunction with the SWFP modification application, and CUP 09-01 conformance is addressed within this Addendum.

Consistent with California Department of Resources Recycling and Recovery (CalRecycle) guidelines, EDCO maintains a TPR, Odor Control Plan, Emergency Response Preparedness Plan and Vector Control Plan per the requirements of the current SWFP. The TPR includes operating procedures for odor reduction, formulated and tested for effectiveness by first-hand experience at the applicant's existing facilities and to be in place from and followed from the first day of operation.

The existing SWFP and CUP are consistent with the standards adopted by CalRecycle pursuant to PRC, Section 44010. The design and operation of the Facility is consistent with the State Minimum Standards for Solid Waste Handling and Disposal as determined by the LEA, pursuant to 14 CCR 17406.1-17419.2. The local fire protection agency, the Los Angeles County Fire Department, determined that the Facility is in conformance with applicable standards, pursuant to PRC, Section 44151 (CUPA Permit No. AR0003101).

SECTION 2 Project Description

EDCO is requesting an increase in daily tonnage accepted by 1,000 tpd, from the existing Condition 3 limit of 1,500 tpd to a new maximum of 2,500 tpd. The City is also considering amending conditions 1 and 2 of the CUP to update the legal language and replace an obsolete construction related condition, respectively. Finally, the City is considering amending the Development Agreement and the Facilities Operations Agreement to reflect the increase in allowable tpd, and to include the new formula for calculating host fees, in addition to other minor changes to these agreements. There are no other proposed physical changes to the Facility or its size. This section describes the proposed Project in detail along with information regarding current Facility operations to support the environmental analysis for the City's decision-making process.

2.1 Project History and Purpose

The site was initially developed in 1923 for oil exploration and development. By 1953, the site had oil derricks, a tank farm, storage of aboveground storage tanks and a surface impoundment associated with oil field activities. After cessation of oil and gas development on the surface of the site, from 1994 until 2013, there were no improvements on the site, and the area was in a blighted condition with residual subsurface contamination from the oil and gas activity. The EDCO Facility was approved in 2009 and constructed in 2012 in part to relieve this blighted condition.

The Facility is a fully surfaced, existing solid waste facility, with some structures and a landscaped perimeter. It has been operating since 2013 under a City February 17, 2009-approved CUP # CP-09-01 for the operation of the Facility, with a permitted tonnage limit of 1,500 tpd. The Facility is located in one of the City's oldest (1964) commercially designated zoning areas known as the Atlantic/Spring Neighborhood sub-planning area. Per the City of Signal Hill General Plan Land Use Element, the EDCO site was previously part of the single largest vacant land area remaining in the City but is now developed as the EDCO Recycling and Transfer Facility and has been since it began operations in 2012.

The EDCO CUP includes a list of conditions of approval that govern operations in order to ensure community compatibility. **Table 2.1-1** below lists the current conditions of approval. As described above, the proposed Project is to amend Condition 3 to increase the maximum allowed capacity at the Facility to the volumes allowed under the emergency waiver of standard during the declared State of Emergency.

Table 2.1-1. Existing Conditions of Approval under CUP 09-01

Condition #	Description
	General Conditions
1	The applicant shall agree to defend, indemnify and hold harmless, the City of Signal Hill, it agents, officers and employees from any claim, action or proceeding against the City of Signal Hill or its agents, officers or employees to attach, set aside, void or annul, an approval of the City of Signal Hill, its legislative body, advisory agencies, or administrative officers concerning subject approval. The City of Signal Hill will promptly notify the applicant of any such claim, action or proceeding against the City of

Condition #	Description
	Signal Hill and the applicant, or owner, will either undertake defense of the matter and pay the City's associated legal costs, or will advance funds to pay for defense of the matter by the Cit Attorney. If the City of Signal Hill fails to promptly notify the applicant of any such claim, action or proceeding, or fails to cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify or hold harmless the City of Signal Hill. Notwithstanding the foregoing, the City retains the right to settle or abandon the matter without the applicant's consent, but should it do so, the City shall waive the indemnification herein, except the City's decision to settle or abandon a matter following an adverse judgment or failure to appeal, shall not cause a waiver of the indemnification rights herein.
2	Approval shall be null and void if the applicant fails to proceed with the project in substantial conformance with the Schedule of Performance attached to the Development Agreement as Exhibit C, or if the approval is rendered void or terminated as a result of a termination or a default pursuant to the terms of the Development Agreement.
3	The maximum allowable capacity of the Facility shall be 1,500 tons of combined recyclables and solid waste per day.
4	The recycling and solid waste transfer uses may operate 7 days a week, 24 hours a day, however, self-haul shall be limited to between the hours of 5 a.m. to 10 p.m. The Director of Community Development may approve exceptions to the hours of operation limitations for specific nighttime self-haul operations.
5	All refuse must be removed from the Facility within 48 hours of delivery.
6	To the extent possible, all Facility operations shall be conducted within the building.
7	The building shall be fully enclosed and include powered roll-up doors that can be closed to control dust and odor.
8	No outdoor storage of any material, including green waste, shall be permitted.
9	Consistent with California Integrated Waste Management Board guidelines, the applicant shall develop and maintain a Transfer Processing Report (TPR), Odor Control Plan, Emergency Response Preparedness Plan and Vector Control Plan. The TPR shall include operating procedures for odor reduction, formulated and tested for effectiveness by first-hand experience at the applicant's existing facilities and to be in place from and followed from the first day of operation.
10	Applicant shall construct and operate the MRF/TS in compliance with all requirements, recommendations, and best management practices ("BMPs") for minimization and mitigation of air quality and odor impacts as detailed in Section 3.5 of the EIR, including but not limited to, compliance with all California Air Resources Board ("GARB") and SCAQMD standards, rules, and regulations as described in that Section; implementation of the construction BMPs listed in Table 3.5-6 of the EIR including but not limited to pre-watering of soil prior to soil disturbances, use of dust suppressants to stabilize stockpiles, pre-watering of material prior to truck loading, and limitation of truck speeds and roadway cleaning, as described therein; implementation of the odor mitigation BMPs listed in Section 3.5.3.2 of the EIR, including but not limited to preparation of an Odor Management Plan for MRF/TSs, limitation of building openings to between 2 and 5 percent of the building walls, installation of a building misting system and fan system to control odors, and all of the other BMPs described therein.

Condition #	Description
11	The exhaust ventilation system for controlling dust and odor within the solid waste transfer station and material recovery areas shall be varied consistent with the level of dust and odor generated from material volumes. The system shall meet all applicable standards of the South Coast Air Quality Management District and include filters to retain dust and avoid generating visible dust plumes.
12	Applicant shall construct and maintain a misting system that shall include water and/or odor neutralizers and shall be kept on during operational hours, except for routine maintenance.
13	The applicant shall be responsible to maintain the implement vector control measures to ensure that insects, rodents or other animals of public health significance are effectively minimized.
14	The applicant shall maintain the perimeter block wall and chain link fence with green vinyl slats as well as all landscaping and irrigation systems installed on private property as well as that within the public right-of-way along Patterson and 28th Streets in a first class condition and shall record a Landscape Maintenance Agreement against the property in a form subject to approval of the City Attorney.
15	All Internal traffic circulation and ingress and egress from the MRF/TS shall comply with the Site Circulation Plan in Figure 3.3-3 of the EIR. Trucks en route to and departing from the MRF/TS shall follow the Off-Site Circulation routes shown in Figures 3.3-4 and 3.3-5 of the EIR. Employee shifts shall be scheduled so that employees do not arrive or depart during peak traffic hours, as detailed in Table 3.3- 4 of the EIR.
16	Applicant-owned vehicles shall not park overnight on City streets or on private properties in the City without prior City zoning review and approval and compliance with all of the requirements for trucking storage yards.
17	Applicant shall implement daily litter pick-up on site, along adjacent properties, adjacent streets and along the designated transportation corridors, from any litter resulting from operation (including customers delivering waste to the Site) will be removed. Applicant's obligation to cleanup debris in public right-of-ways and/or transportation corridors shall apply regardless of whether such debris was inadvertently spilled or intentionally dumped. The transportation corridors (with those designated for litter control) are as follows: Willow Street - City limit to City limit Spring Street - City limit to City limit (Litter Control Cherry to Atlantic) Cherry Avenue - City limit to City limit California Avenue - Willow Street to Spring Street (Litter Control) Orange Avenue - Spring Street to 32nd Street (Litter Control) Pacific Coast Highway - City limit to City limit A street sweeper shall be used to assist in compliance with this condition, Records of cleaning schedules, including dates and times, shall be maintained at the Facility.
18	Applicant shall provide a level of services at the Facility such that City streets surrounding the Site shall be free of any queuing of vehicles entering or leaving the Facility other than occasional queuing and intermittent stoppages on 28th Street west of California Street which do not interfere with through traffic, Applicant shall manage vehicular queuing on 28th Street such that queue spillback shall not reach California Avenue, Applicant shall staff the Facility as needed to meet this performance standard

Condition #	Description
	and prevent interference with traffic circulation on all streets other than that portion of 28th Street immediately adjacent to the Site.
19	All commercial vehicles delivering to the Facility shall be adequately covered or enclosed to eliminate spillage on adjacent properties or public streets in-transit.
20	The applicant shall be responsible to keep the areas outside of the buildings free of litter, dust and debris. The exterior areas shall be cleaned daily. An automated sweeper equipped with water and odor neutralizers shall be used on paved surfaces at the site. Records of cleaning/or schedules, including dates and times, shall be maintained at the Facility.
21	The loading dock area shall be kept in a clean and sanitary state, free from trash and debris.
22	The tipping floors shall be cleaned on a regular basis to remove build-up of waste residue. Records of cleaning schedules, including dates and times, shall be maintained at the Facility.
23	The applicant shall comply with existing City noise standards during construction and operation of the MRF/TS. Pursuant to Chapter 9.16 of the City Municipal Code, noise levels generated at the Facility shall not exceed seventy five (75) dB as measured at adjacent property lines. If the City receives a noise complaint, the City may hire a certified acoustical engineer to measure Facility related noise levels. EDCO shall be responsible to suspend or mitigate noncompliant noise if a violation is documented and reimburse the City for acoustical engineering costs. The City's Planning Director can implement further noise mitigation measure in the event of complaints.
24	No advertising material or signs shall be painted, installed, erected or displayed on the building exterior without first obtaining City approval.
25	No signs are permitted on the roof of the building. This includes temporary banner signs mounted on temporary or permanent supports, aerial signs, animated signs, and rotating signs.
26	The applicant shall maintain an on-site directional/informational sign program for the Facility to ensure safe circulation and enforcement of rules and regulations. The sign program shall be reviewed and approved by the Director of Community Development prior to installation.
27	The applicant shall provide sufficient staff to maintain the property and surrounding streets in first class condition free of accumulations of trash and debris. An attendant shall be stationed at or near the scale house during operational hours to greet in-coming vehicles and direct them to the appropriate location to off-load.
28	The Facility operation shall meet all municipal code requirements of the City of Signal Hill and any applicable requirements of the State Department of Conservation, Division of Oil, Gas and Geothermal Resources, California Integrated Waste Management Board, Los Angeles County Department of Public Health, Los Angeles County Fire Department and South Coast Air Quality Management District.
29	The premises shall be subject to inspection by city personnel pursuant to the provisions of the Development Agreement, including, but not limited to, those provisions regarding "reports and monitoring," and also the provisions concerning complaints or nuisance conditions on the site and enforcement rights.
30	addition to the above-listed conditions, the applicant acknowledges that additional conditions and obligations will be imposed upon it through a Development Agreement, Disposition and Development

Condition #	Description
	Agreement with a Lease, Operations Agreement and Covenants, Conditions and Restrictions applicable to the project.

2.2 Project Location

The Project site consists of an approximately 3.75-acre parcel located at the northwest corner of California Avenue and Patterson Street in the City of Signal Hill, County of Los Angeles (Assessor's Parcel Number 7207-022-043). The Project site is bound by Patterson Street to the south, California Avenue to the east, and the 28th Street and Olive Avenue rights-of-way (unimproved) to the north and west, respectively. **Figure 2.2-1** shows the Project site location within the overall region and **Figure 2.2-2** provides a detailed street map of the Project site.

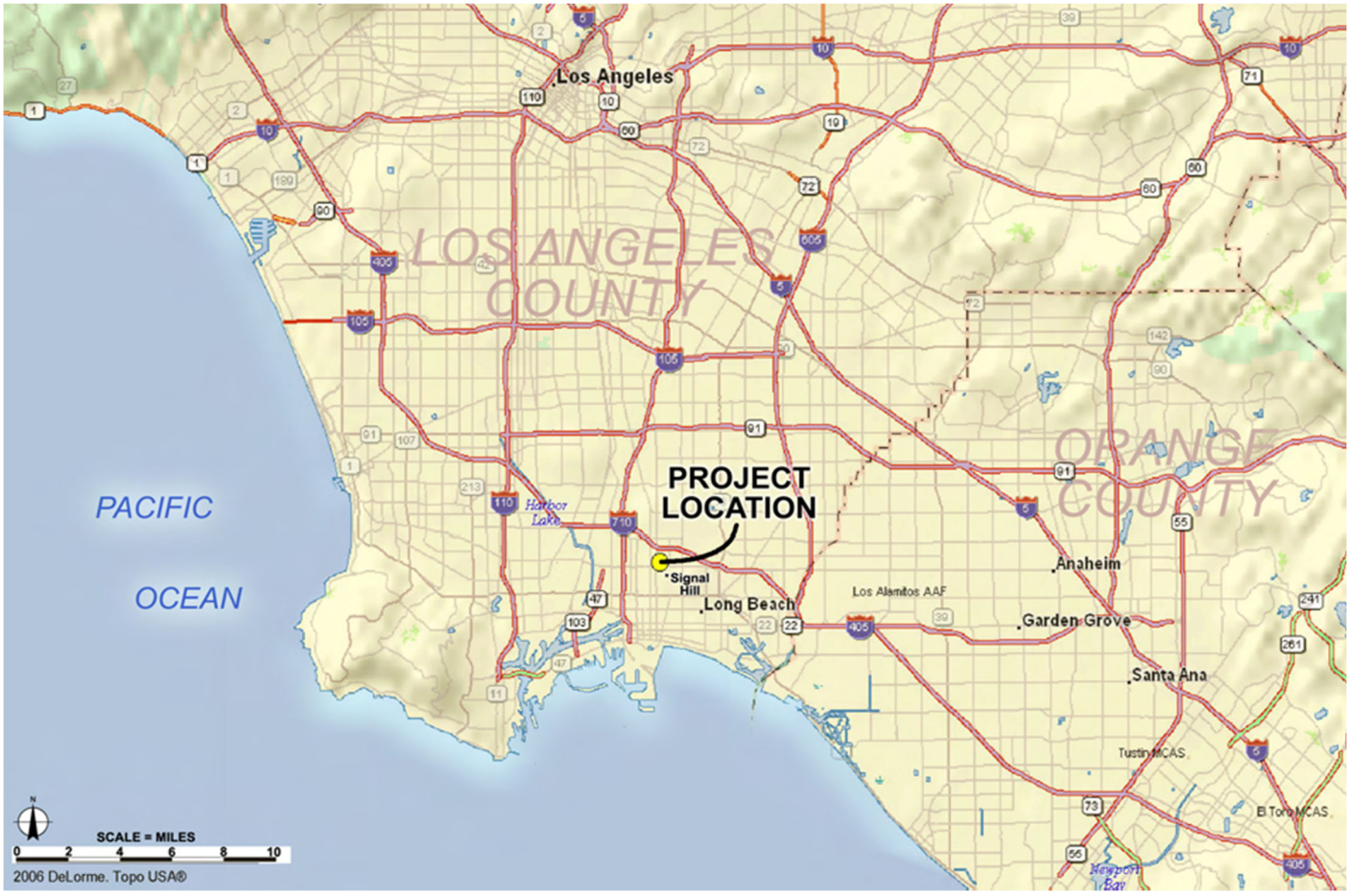


Figure 2.1-1. Regional Project Location

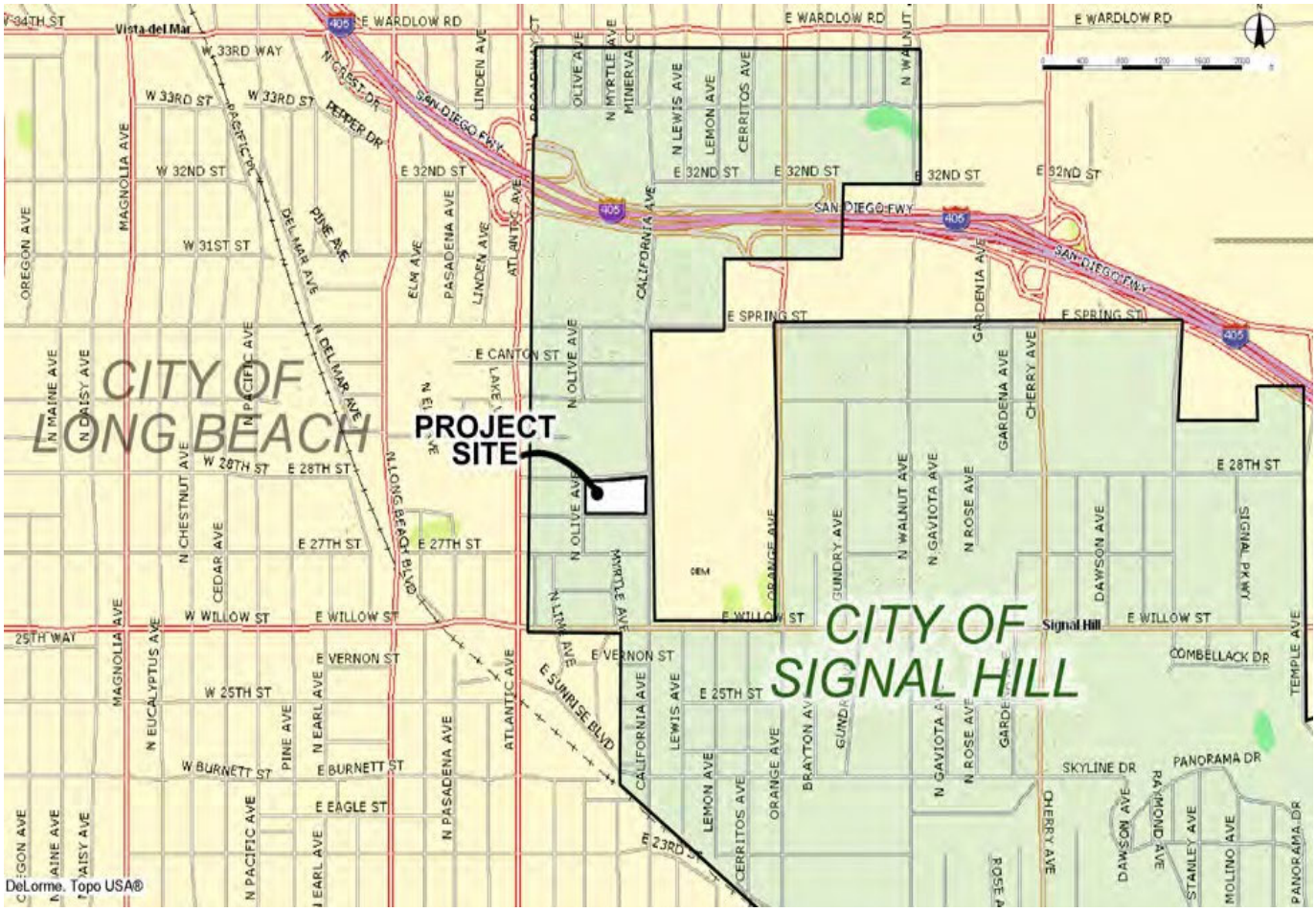


Figure 2.1-2. Project Site Location and Vicinity

2.3 Site Description

The Facility is owned and operated by EDCO Transport Services and is located on privately-owned land. The overall building footprint is approximately 68,838 square feet (sq ft), consisting of the MRF/Transfer Station (approximately 56,149 sq ft), a two-story office area (6,469 sq ft), a buy-back center (1,801 sqft), and the Permanent Household Hazardous Waste Collection Facility (PHHWCF) area (approximately 1,173 sqft).

Figure 2.3-1 Photo of EDCO Facility from California Ave.

The Project site is zoned SP-19, as General Industrial Specific Plan. The current General Plan Land Use Element designation for the Project site and immediate area is Area 3 of SP-19, General Industrial. The surrounding area is a mixture of General Industrial, Commercial General to the east, and Commercial Industrial zoning to the south.

2.4 Existing Operations

All materials entering the Facility are dumped on the concrete tipping floor located in the enclosed material reclamation facility (MRF) building. Designated recyclable material is dumped and stored along the west side of the building. Recyclable material that is floor-separated from the Transfer Station municipal solid waste piles is transferred to designated containers and bins located in the MRF. Once full, these materials are transported to secondary materials markets. Storage and transportation records are maintained in the main office building for auditing purposes. Paper materials are baled at the western side of the Facility and then transferred to a truck in the Facility loading bay. **Table 2.4-1** lists the materials accepted for disposal at the EDCO facility. **Table 2.4-2** lists the materials that are not accepted at the EDCO Facility.

Table 2.4-1. Materials Accepted for Disposal at the EDCO Facility

Material Category	Items Accepted
Municipal solid waste	Residential, Commercial, Industrial
Organics	Residential curbside and commercial green waste and food waste
Recyclables	Source separated, single stream and commercial recyclables, Construction and industrial recyclables
Construction and demolition materials	All

Material Category	Items Accepted
Self-haul	All
Household Hazardous Waste (The Facility only accepts HHW during PHHWCF events that are coordinated with the City of Signal Hill and the County of Los Angeles Public Works Department. HHW is not accepted outside of these designated events that are overseen by EDCO partners.)	Non-controlled pharmaceuticals, Needles and syringes, Antifreeze, Cleaning supplies, cosmetics, used motor oil, pesticides, Batteries including car batteries and household batteries, fluorescent light bulbs, TVs, computers, VCRs, stereos, and cell phones.
Universal Waste	All
Salvageable Items	Newsprint, Corrugated containers, Plastic containers (California Redemption Value [CRV] and non-CRV), Mixed plastics, Aluminum cans (CRV and non-CRV), High-grade paper, Mixed paper (including junk mail), Styrofoam, Ferrous and bi-metal containers, Glass containers, Aseptic cartons

Table 2.4-2. Materials Not Accepted for Disposal at the EDCO Facility

Material Category	Specific Items
Hazardous Waste	Designated wastes (profiled hazardous materials) are not accepted at the Facility. Other than household hazardous waste, no sludge, liquids, infectious, medical or hazardous materials are accepted at the Facility.
Non-Salvageable Items	The Facility does not accept any cosmetics, beverages, hazardous chemicals, poisons, pesticides or other materials capable of endangering public health.
High Liquid Content Waste	The Facility does not accept any publicly owned treatment works sludge or residuals. It also does not accept industrial wastewater treatment sludge, septic tank pumping, chemical toilet wastes or liquid wastes. The Facility does accept saturated waste less than 15% liquid content, as long as the liquid is non-hazardous.
Household Hazardous Wastes	Household hazardous waste not accepted at any time: ammunition, marine flares, radioactive materials, controlled substances, tires, or large household goods (refrigerators, washing machines, etc.)
Other Wastes Requiring Special Handling	CalRecycle designated special wastes.

2.4.1 Project Personnel and Hours of Operation

The Facility is permitted to operate seven days per week, 24 hours per day. Hours of operation listed in **Table 2.4-3** below are based on business demands and are subject to change.

Table 2.4-3. Facility Hours of Operation (Permitted and Actual)

Facility Location	Permitted Hours of Operation	Actual Hours of Operation
MRF/TS and Maintenance	24 hours/day 7 days per week	6AM – 6PM Mon – Fri/6AM – 4:30PM Sat/9-1:30 Sun
Office	24 hours/day 7 days per week	6AM – 6PM Mon – Fri/6AM – 4:30PM Sat
Public	5 a.m. to 10 p.m.	6AM – 4:30PM Mon – Sat/9AM – 1:30PM/9-1:30 Sun
County Residents Permanent Household Hazardous Waste + E-Waste Drop Off		Open the second and fourth Saturday of every month from 9 a.m. - 2 p.m.. EDCO will be closed the following dates: 1/13/24; 3/23/24; 5/25/24; 10/12/24; 11/9/24; and 12/28/24.[2]

2.4.2 Utilities and Energy Consumption

Because the EDCO Facility was designed for a maximum capacity of 6,336 tpd of solid waste, increasing the permitted throughput from 1,500 to 2,500 tpd would not require a physical expansion of the Facility or result in substantial additional on-site energy consumption or water use compared to conditions prior to issuance of the emergency waivers. The Project would not require additional consumption of fuel by EDCO's fleet of heavy-duty vehicles, or additional personnel to manage the waste. EDCO's fleet of heavy-duty vehicles are renewable natural gas powered and fueled offsite. Project employees and other onsite personnel would continue to utilize existing sewer-connected restrooms at the Facility site. The hours of operation and electricity and water consumption are generally constant regardless of material throughput up to the maximum design capacity of 6,336 tpd.

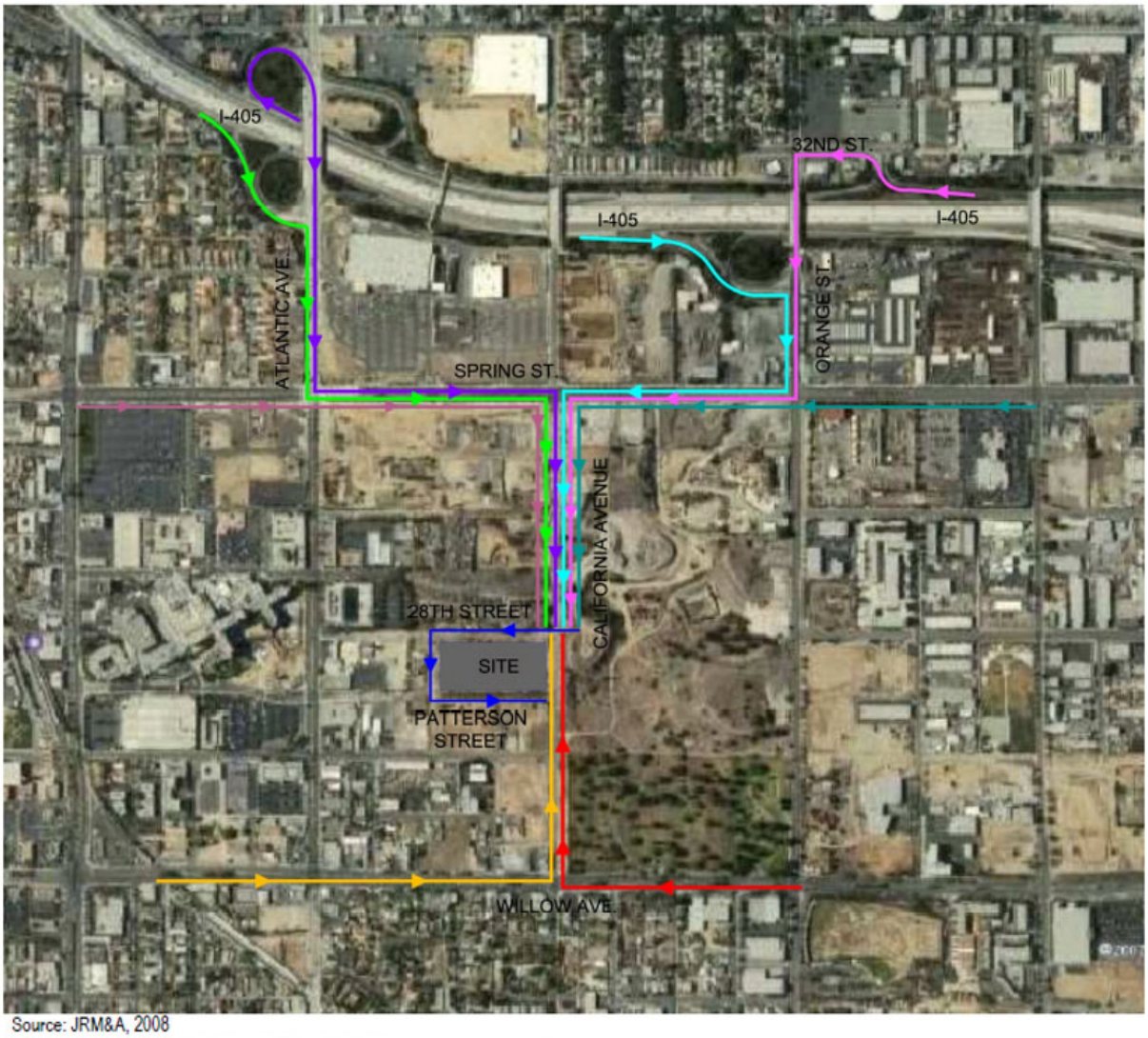
2.4.3 Hazardous Materials and Storage

The existing activities of the Facility include a PHHWCF, with County wide collection events typically sponsored by the City of Signal Hill and the Los Angeles County Department of Public Health. These are household hazardous waste collection facilities operated by a public agency on a continuous, regular schedule and housed in a permanent or semi-permanent structure at a fixed location. The household hazardous waste collected at the EDCO Facility is transported off-site within 90 days. No other hazardous materials are stored at the Facility as part of general operations.

2.4.4 Existing Transport Operations

Access to the Facility is from California Avenue and 28th Street. The primary route of delivery to the Facility traveling south on Interstate 405 (I-405) is to exit to Atlantic Avenue onto Spring Street and turn south onto California Avenue towards 28th Street. The primary route of delivery to the Facility traveling north on I-405 is to exit at the Orange Avenue off ramp, turn west on East 32nd Street, proceed to Orange Avenue, and travel north on Spring Street to California Avenue. Arrival and departure routes are illustrated in **Figures 2.4-1 and 2.4-2.**

[2] Los Angeles County Department of Public Works. 2024. "About EDCO". Available at: https://dpw.lacounty.gov/epd/hhw/Aboutedco



Source: JRM&A, 2008

CIRCULATION LEGEND

I-405 SOUTH EXIT ATLANTIC AVE. OFF RAMP,
RIGHT ON ATLANTIC AVE.(SOUTH),
LEFT ON SPRING ST.(EAST),
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 SOUTH EXIT ORANGE ST. OFF RAMP,
RIGHT ON ORANGE ST.(SOUTH),
RIGHT ON SPRING ST.(WEST),
LEFT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 NORTH EXIT ORANGE ST. OFF RAMP,
LEFT ON EAST 32ND ST.(WEST)
LEFT ON ORANGE ST.(SOUTH)
RIGHT ON SPRING ST.(WEST),
LEFT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 NORTH EXIT ATLANTIC AVE. OFF RAMP
LEFT ON ATLANTIC AVE.(SOUTH)
LEFT ON SPRING ST.(EAST),
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

WILLOW AVE. WEST,
RIGHT ON CALIFORNIA AVE.(NORTH)
LEFT ON 28TH ST.(WEST)
ACCESS SITE

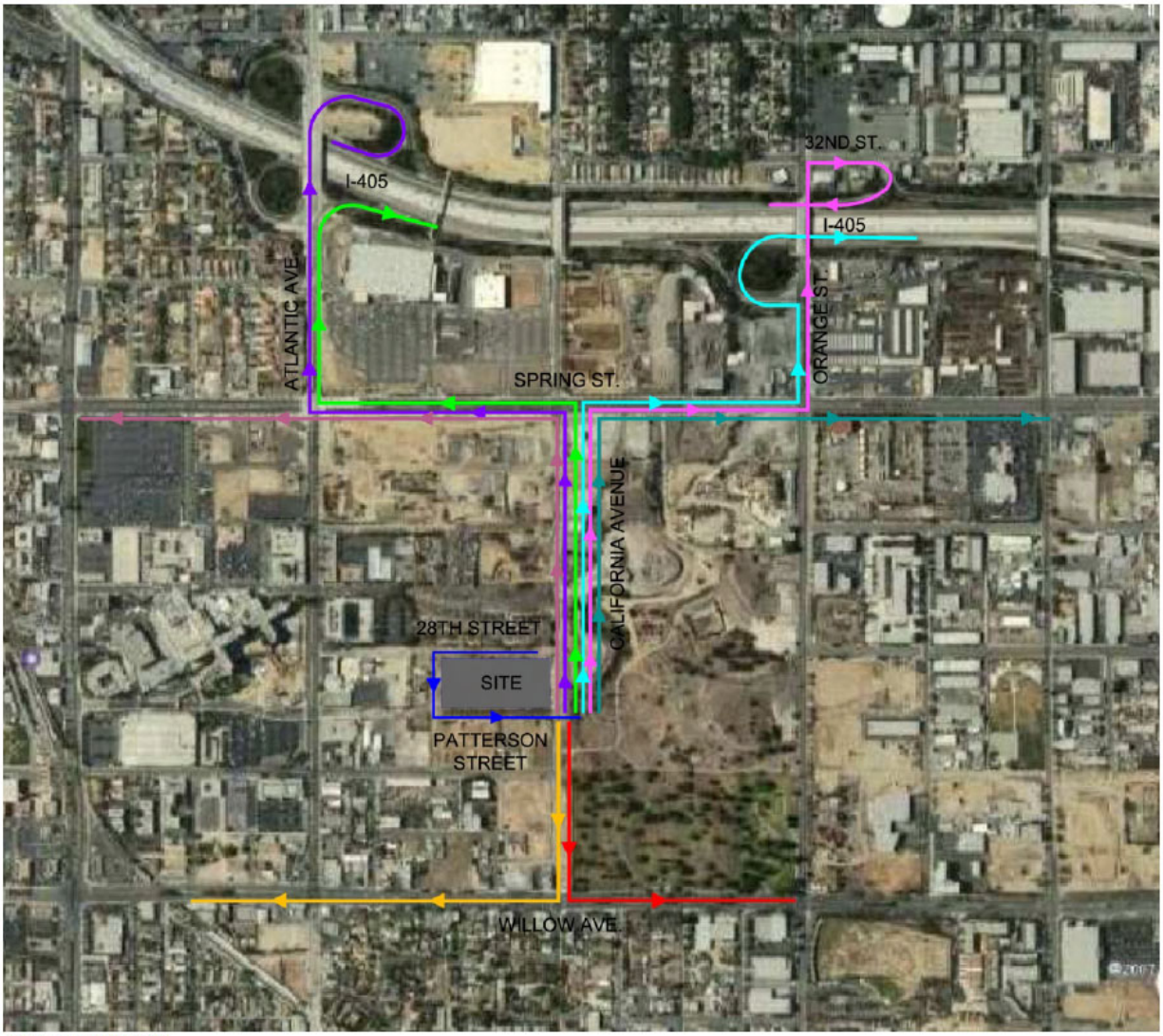
WILLOW AVE. EAST
LEFT ON CALIFORNIA AVE.(NORTH)
LEFT ON 28TH ST.(WEST)
ACCESS SITE

SPRING STREET HEADING EAST,
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

SPRING STREET HEADING WEST,
RIGHT ON CALIFORNIA ST.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

SITE CIRCULATION

Figure 2.4-1. Offsite Circulation: Arrival Routes



Source: JRM&A, 2008

CIRCULATION LEGEND

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST),
RIGHT AT ATLANTIC AVE(NORTH),
FAR RIGHT LANE TO I-405 SOUTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),
LEFT AT ORANGE ST.(NORTH),
LEFT TURN LANE TO I-405 SOUTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST),
RIGHT AT ATLANTIC AVE.(NORTH),
RIGHT LANE OVER BRIDGE
TO I-405 NORTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),
LEFT AT ORANGE ST.(NORTH),
RIGHT LANE TO EAST 32ND STREET,
TURN RIGHT(SOUTH) AT I-405 NORTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST).

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
RIGHT AT CALIFORNIA AVE.(SOUTH),
RIGHT AT WILLOW AVE.(WEST)

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
RIGHT AT CALIFORNIA AVE.(SOUTH),
LEFT AT WILLOW AVE.(EAST)

SITE CIRCULATION

Figure 2.4-2. Offsite Circulation: Departure Routes

Using the permitted capacity of 1,500 tpd as a baseline number, the estimated number of commercial trucks accessing the Facility are approximately 239 (171 collection vehicles, 68 transfer tractor trailers) and 350 self-haul/employee passenger vehicles per day. **Table 2.5-1** in **Section 2.5.1** below provides a summary of the assumed existing trips, estimated trips, and change in trips from existing conditions under the Project.

Key roadways in the study area are described here. The discussion is limited to specific roadways that traverse the study intersections and serve the Project site. **Figure 2.4.3** depicts the existing service areas and schedule for collection trucks. The existing CUP mandates that all ingress and egress from the Facility shall follow the circulation routes depicted in **Figure 2.4-4** and that all trucks en route to and departing the Facility shall follow the off-site circulation routes depicted on **Figure 2.4.1** and **Figure 2.4-2** above. Further, the CUP requires that employee shifts are scheduled so that employees do not arrive or depart during peak traffic hours as detailed in **Table 2.4-4.**

The City has long contemplated widening California Street (Collector Street) in the Project Area and removing the barrero on 28th Street (Local Street) and paving it to the west as a through street to Atlantic Avenue. The City anticipates considering these and other transportation flow actions as part of the General Plan Circulation Element update, which is anticipated for 2025. If these local roadways are modified in the future as a result of the Circulation Element, the effects in the vicinity of the Facility would be modeled and evaluated at that time. The capacity expansion for the Facility does not require changes to the street pattern or circulation flow at this time.

Table 2.4-4. Hourly Distribution of Vehicles (Existing Operations @ 1,500 tpd)

Time	Collection Trucks	Self-Haul Vehicles	Transfer Trucks	Staff Vehicles	Total Vehicles
10:00-11:00 PM	0	0	0	0	0
11:00-12:00 PM	0	0	0	0	0
12:00-1:00 AM	0	0	0	0	0
1:00-2:00 AM	0	0	0	0	0
2:00-3:00 AM	0	0	0	0	0
3:00-4:00 AM	0	0	4	2	6
4:00-5:00 AM	2	0	6	2	10
5:00-6:00 AM	5	0	6	21	32
6:00-7:00 AM	5	10	5	0	20
7:00-8:00 AM	10	15	4	0	29
8:00-9:00 AM	12	25	5	0	42
9:00-10:00 AM	20	30	5	0	55
10:00-11:00 AM	15	35	4	0	54
11:00-12:00 AM	12	45	4	0	61
12:00-1:00 PM	15	30	5	0	50
1:00-2:00 PM	15	35	5	2	57
2:00-3:00 PM	15	30	5	2	52
3:00-4:00 PM	15	25	5	21	66
4:00-5:00 PM	15	20	2	0	37
5:00-6:00 PM	10	0	2	0	12
6:00-7:00 PM	5	0	1	0	6
7:00-8:00 PM	0	0	0	0	0

Time	Collection Trucks	Self-Haul Vehicles	Transfer Trucks	Staff Vehicles	Total Vehicles
8:00-9:00 PM	0	0	0	0	0
9:00-10:00 PM	0	0	0	0	0
TOTAL	**171**	**300**	**68**	**50**	**589**

Source: 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009)

Notes: Shading indicates peak traffic hours.

In general, the Facility plays a significant role in reducing both air emissions and vehicle miles traveled, primarily through the consolidation of loads. Benefits include, but are not limited to:

- Reducing overall community truck traffic by consolidating smaller loads into larger vehicles.
- Reducing air pollution, fuel consumption and road wear by consolidating loads into fewer vehicles.
- Allows for screening of waste for special handling.
- Offers residents a convenient drop-off of waste and recyclables and reduces the overall impact of miles driven to a landfill through load consolidation.

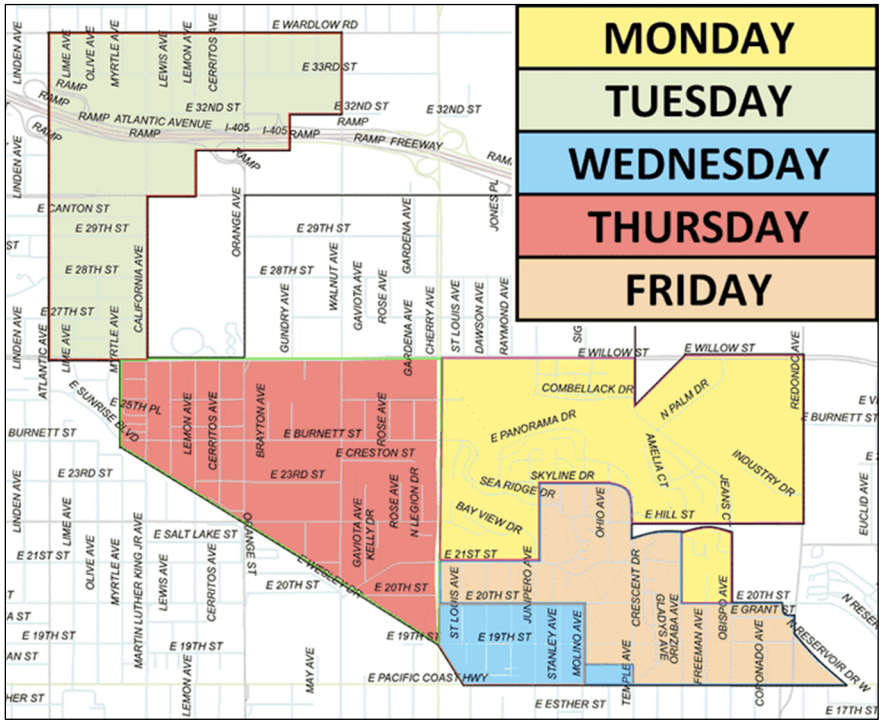


Figure 2.4-3. Collection Service Areas and Schedule

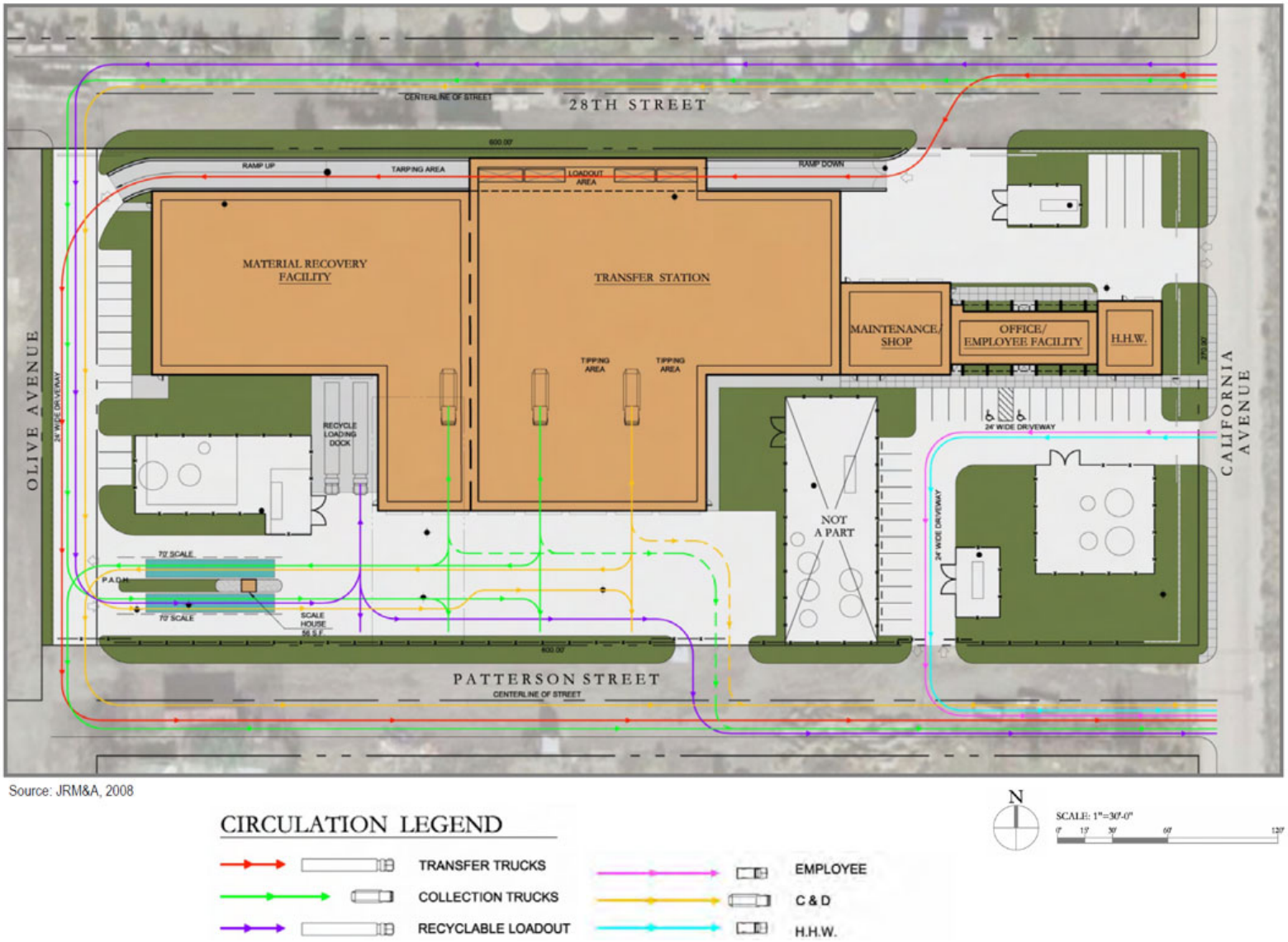


Figure 2.4-4. Project Site Access Circulation

2.5 Proposed Revision to Condition 3 Weight Limits

A FEIR was prepared and certified in 2009 for the EDCO Recycling and Transfer Facility that evaluated construction and operation of the Facility (State Clearinghouse # 2008081009) at a maximum built capacity of up to 6,336 tpd (City 2009). In addition, the tipping floor can receive and store up to 3,644 tons of material. Since the design elements allow a significantly higher load out capacity than what is existing or proposed, no physical changes to the Facility are necessary to accommodate the requested increase of allowable volume by 1,000 tpd, for a total maximum of 2,500 tpd.

2.5.1 Vehicle Trips from Refuse Increase

A variety of different types of vehicles utilize the Facility, but they are primarily broken into three categories: collection trucks, transfer tractor/trailers and self-haul/employee passenger vehicles. The proposed increase in permitted capacity would result in associated increases in vehicles accessing the Facility. Currently, the estimated number of commercial trucks accessing the Facility are approximately 239 (171 collection vehicles, 68 transfer tractor trailers) and 350 self-haul/employee passenger vehicles per day. With an increase in permitted capacity, the total number of vehicles accessing the Facility each day would approximately double, from 589 to 998, as shown in **Table 2.5-1.** Similarly, the Project would result in increases in the average daily trips as indicated in **Table 2.5-1**, and total vehicle miles traveled in **Table 2.5-2.**

Table 2.5-1. Trip Generation Summary (Existing versus Project)

Vehicle Type	Existing (@1,500 tpd)		Project (@2,500 tpd)		Change from Existing
	Vehicles Accessing Facility[1]	ADT (trips/day)[1]	Vehicles Accessing Facility	ADT (trips/day)	ADT (trips/day)
Collection Trucks	171	342	285	570	228
Transfer Trucks	68	136	113	226	90
Self-Haul (Passenger Vehicles)	300	600	500	1,000	400
Employee (Passenger Vehicles)	50	100	100	200	100
TOTAL	**589**	**1,178**	**998**	**1,996**	**818**

Notes:

[1] As reported in 2009 EDCO Recycling and Transfer Facility FEIR (State Clearinghouse SCH # 2008081009)

Table 2.5-2. Project Vehicle Miles Traveled Summary

Vehicle Type	One-Way Trip Length (miles)[1]	Project Average Daily Traffic (trips/day)	Project Daily Vehicle Miles Traveled (miles/day)
Collection Trucks	10	228	2,280
Transfer Trucks	50	90	4,500
Self-Haul (Passenger Vehicles)	10	400	4,000
Employee (Passenger Vehicles)	20	100	2,000
		TOTAL Vehicle Miles Traveled	**12,780**

Notes:

[1] Trip length as cited in the 2009 EDCO Recycling and Transfer Facility FEIR (State Clearinghouse SCH # 2008081009).

Since the FEIR was certified in 2009, EDCO has converted the entire fleet of collection trucks to renewable natural gas (RNG) powered vehicles. These vehicles are considered "Near Zero" emission vehicles, that produce almost zero nitrogen oxides (NO_X). In addition, the RNG powering the collection fleet is considered a carbon neutral or carbon negative (depending on the specific intensity of the RNG) collection fleet.

2.5.2 Off Road Equipment Use

Existing operations include the use of diesel loaders for handling and loading refuse at the Facility. The Facility will see a mild increase in the use of their diesel offroad equipment. Processing of an additional 1,000 tpd would require two additional hours of use of diesel off-road equipment every day. Daily operations will occur with equipment use of a Loader Liebherr L1566, which is powered by diesel fuel, with 272 horsepower (EDCO Signal Hill 2024).

2.6 Proposed Amendments to Condition 1 and 2 and Amendments to Agreements

CUP Condition 1 would be updated to reflect the most current standard wording from the City Attorney's office regarding indemnification, as illustrated in the following two paragraphs:

The 2009 CUP Condition 1 currently reads:

The applicant shall agree to defend, indemnify and hold harmless, the City of Signal Hill, it agents, officers and employees from any claim, action or proceeding against the City of Signal Hill or its agents, officers or employees to attach, set aside, void or annul, an approval of the City of Signal Hill, its legislative body, advisory agencies, or administrative officers concerning subject approval. The City of Signal Hill will promptly notify the applicant of any such claim, action or proceeding against the City of Signal Hill and the applicant, or owner, will either undertake defense of the matter and pay the City's associated legal costs, or will advance funds to pay for defense of the matter by the Cit Attorney. If the City of Signal Hill fails to promptly notify the applicant of any such claim, action or proceeding, or fails to

cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify or hold harmless the City of Signal Hill. Notwithstanding the foregoing, the City retains the right to settle or abandon the matter without the applicant's consent, but should it do so, the City shall waive the indemnification herein, except the City's decision to settle or abandon a matter following an adverse judgment or failure to appeal, shall not cause a waiver of the indemnification rights herein.

The proposed change to CUP Condition 1 would read:

The applicant shall indemnify, protect, defend, and hold the City of Signal Hill (City), and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, harmless from any and all claims, demands, lawsuits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative or adjudicatory in nature), and alternative dispute resolution procedures (including, but not limited to arbitrations, mediations, and other such procedures), judgments, orders, and decisions (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul, any action of, or any permit or approval issued by the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City) for or concerning the project, whether such Actions are brought under the Ralph M. Brown Act, California Environmental Quality Act, the Planning and Zoning Law, the Subdivision Map Act, Community Redevelopment Law, Code of Civil Procedure Sections 1085 or 1094.5, or any other federal, state, or local constitution, statute, law, ordinance, charter, rule, regulation, or any decision of a court of competent jurisdiction. It is expressly agreed that the City shall have the right to approve, which approval will not be unreasonably withheld, the legal counsel providing the City's defense, and that property owner/operator shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action. This provision to indemnify shall survive the expiration, termination, suspension, or revocation of this permit.

In addition, **CUP Condition 2** has already been met by the construction of the facility. The original language regarding the deadline for construction of the Facility is proposed to be replaced (given construction was completed in 2012) with an updated CUP Condition 2 which clarifies the amended COAs supersede to initial COAs. This would be reflected by the changes illustrated in the following two paragraphs.

The CUP Condition 2 reads:

Approval shall be null and void if a certificate of occupancy is not granted and operations commenced within 24 months of the City Council approval of this Conditional Use Permit. Prior to the expiration date, the applicant may request a 12-month extension from the Director of Community Development. Any additional extensions shall be granted by the City Council.

The proposed change to CUP Condition 2 would read:

Approval of the amendment to Conditional Use Permit (CUP) 09-01 is subject to Planning Commission review and recommendation to City Council for final determination and approval. Approval of the amendment to CUP 09-01 and all conditions of approval included in Exhibit A of Resolution No. XXX-XX-

XXX shall supersede and replace previous conditions of approval included in the previous approval on February 17, 2009.

The City's approval in 2009 of the EDCO facility, **included a number of interrelated documents**, including the following:

- Development Agreement, which defined EDCO's obligations vis a vis the City, including ongoing payment of the host fee.
- Facility Operations Agreement, which defined and regulated EDCO's maintenance and operational obligations and performance standards for the facility.
- Franchise Agreement, which granted EDCO an exclusive franchise to operate the facility within the City for a period of 15 years.
- Conditional Use Permit, which permitted the facility and imposed conditions on the use of the site and facility.
- Disposition and Development Agreement between the Redevelopment Agency and EDCO for conveyance by lease of an Agency parcel to EDCO for the development of the facility with an option to buy the parcel.
- Covenants, conditions and restrictions ("CC&Rs") devoting the facility to the uses specified in the Redevelopment Plan and in the DDA.

Because there is only one operational change to the Facility being proposed (the increase in daily tonnage from 1,500 to 2,500 tpd), only minor changes were needed to the documents listed above. Specifically, the Development Agreement and Facilities Operations Agreement have been updated to reflect the increase in allowable tbd, and to include the new formula for calculating host fees, in addition to other minor changes to these agreements including a 20-year extension of the term. All of the other documents remain unchanged, including the Franchise Agreement, which has expired and will not be renewed.

SECTION 3 Evaluation of Environmental Impacts

3.1 Impact Assessment Methodology

This section evaluates the potential environmental impacts of the Project, in comparison to the impact analysis in the FEIR, to determine if the Project would result in a new significant impact not previously identified in the FEIR or increase the severity of any impacts described in the FEIR. Each environmental resource section provides background information and describes the environmental setting (baseline conditions) to help the reader understand the context for the impact assessment. The regulatory framework relevant to each environmental resource category is then described. Next, environmental impacts of the Project are evaluated in conformance with CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.) including the CEQA Checklist included as Appendix G to the Guidelines. Significance criteria are identified for each environmental resource category. The significance criteria serve as benchmarks for determining if the Project would result in a significant adverse environmental impact when evaluated against the environmental baseline conditions. After this analysis, findings are made whether there are new significant impacts, or more severe impacts due to the modified Project compared to the 2009 certified FEIR. These findings form the basis of an Addendum to the 2009 FEIR being the appropriate level of CEQA review.

This Environmental Analysis considers four categories of environmental impacts, as follows:

- **No Impact**. The Project would not have any measurable environmental impact on the environment.
- **Less than Significant Impact**. The Project may have the potential for affecting the environment, although these impacts will be below levels or thresholds that the City of Signal Hill or other responsible agencies consider to be significant.
- **Less than Significant Impact with Mitigation Incorporated**. The Project may have the potential to generate impacts that will have a significant impact on the environment. However, the level of impact would be reduced to levels that are less than significant with the implementation of mitigation measures.
- **Potentially Significant Impact**. The Project may result in environmental impacts that are significant and cannot be reduced to levels that are less than significant even with the implementation of mitigation measures.

For several resource categories there is a clear rationale that the proposed Project of modifying CUP Condition 3 would not have new or more severe impacts compared to the Project evaluated in the 2009 FEIR, as follows.

Agriculture and Forestry. The FEIR determined that because no agricultural or forest lands exist in the City of Signal Hill, there is no potential for impacts to this resource category and did not discuss it in further detail. Since 2009, no new agricultural or forested land uses have been introduced within the City. As such there can be no impact to agriculture and forestry, and no new significant impact or more severe impact compared to the 2009 FEIR.

Population/Housing and Recreation. The FEIR determined that because no residential housing was located in close proximity to the EDCO Facility, and the Project did not involve any activities which would

result in increased population or need for housing, or parks or other recreational facilities in the City of Signal Hill, any impacts with regard to population and housing and recreation would be less than significant and did not discuss these resource categories in any further detail in the FEIR. This Project involves only a proposed increased in the maximum volume of materials received daily at the EDCO Facility and no additional construction or development activities or change in the footprint of the EDCO Facility. As such there can be no impact to population/housing and recreation, and no new significant impact or more severe impact compared to the 2009 FEIR.

Public Services. The FEIR determined that due to the factors of the EDCO Facility location in an urban, industrial land use, and services limited to fire and police, any impact on public services (including recreation and utilities) would be less than significant and did not address this resource category in detail in the FEIR. The Project would not expand the footprint of the EDCO Facility or result in any changes to operations which would require additional services by fire or police departments. The FEIR also determined that because the EDCO Facility would be serviced by existing utilities there would be no impacts to utilities and did not address this resource category in detail. Electricity, water, consumption levels would remain at the same level as part of ongoing Project operations. The current Facility is designed for higher tonnages than the existing Project permit level. As such the Project would similarly result in no impacts to utilities and service systems. Ongoing operations would not require the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. As such there can be no impact to public services, and no new significant impact or more severe impact compared to the 2009 FEIR.

With regard to the consideration of modifying CUP Conditions 1 and 2 and amending the Development Agreement and Facility Operations Agreement, none of these entail a physical change to the environment. Because the EDCO Facility can operate indefinitely under CUP 09-01, which does not have a term, the changes being analyzed in the Addendum do not result in operations for a longer period of time than was already analyzed in the EIR. No other changes, expansions, or other potential modifications of the physical environment are requested by EDCO or are reasonably foreseeable. As such, the potential environmental effects of modifying Conditions 1 and 2 and amending the Development Agreement and Facility Operations Agreement would have no environmental impact, and as such would not have new or more severe impacts compared to the Project evaluated in the 2009 FEIR.

3.2 Aesthetics Resources

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Aesthetics. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.2.1 Environmental Setting

The Project site is located within the Atlantic/Spring Neighborhood sub-planning area, which contains the single largest vacant land area remaining in the City and remains largely vacant due to multiple development constraints. These constraints include on- going oil production activities that are primarily independent oil operations, contaminated soils including sumps and past refining facilities, small lot sizes and fragmented ownership patterns, lack of infrastructure, and topographical constraints.

The Olive Avenue and 28th Street roadways adjacent to the west and north of the Project site, respectively, are unimproved. Olive Avenue consists of partially paved asphalt and dirt, 28th Street is dirt over asphalt, while California Ave. and Patterson St. are improved roadways with curbing. Patterson Street does not contain any street lighting.

1.1.1.1 Roadways

The Facility is located adjacent to numerous public roadways and rights-of-ways. No designated scenic highways are located within the boundaries of the City of Signal Hill. No candidate or officially designated state scenic highways are located within the City. The closest eligible state scenic highway is located southeast of the City and includes a portion of State Route 1 (SR-1) which ends at the Traffic Circle neighborhood in Long Beach (Caltrans 2018). The City of Signal Hill designated a roadway that surrounds the Hilltop area as a scenic route. The roadway includes Panorama Drive, 23rd Street, 21st Street and portions of Temple Avenue. This scenic route provides a link between the Civic Center/Hinshaw Park and the Alamitos 1 Well State Historical Monument, which is located on the east side of the Hill at Temple and Hill streets. The route provides views of urban Southern California from the Hilltop area (City 1986).

1.1.1.2 Local Viewpoints and Scenic Vistas

The hilltop areas of Signal Hill are a valued public resource, including the scenic vistas from Hilltop, Sunset View, and Discovery Well parks (City 2001).

Public viewpoints were analyzed for the Facility site. Visual impacts at these closest viewpoints conservatively account for potentially affected views at locations farther from the Facility. **Table 3.2-1** shows photographs of the existing views at each corner at the public right-of-way at 28th Street, where the public entrance to the Facility is located, and where vehicles que for entrance.

Table 3.2-1. Existing Facility View

Street	View of Facility from Public Viewpoint NE Corner, West Facing	View of Facility from Public Viewpoint NW Corner, East Facing
28th St.		

3.2.2 Regulatory Setting

3.2.2.1 California Scenic Highway Program

Caltrans manages the State Scenic Highway Program and provides guidance to agencies seeking official designation of a State Scenic Highway. A highway may be designated as "scenic" depending on how much of the natural landscape can be seen by travelers, the scenic quality of the surrounding landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. Highways may also be identified as "candidate" scenic highways, pending official designation. State laws that govern the Scenic Highway Program are found in the Street and Highways Code, Sections 260 through 263. Caltrans maintains a list of eligible and officially designated State scenic highways, which are identified in Section 263 of the Streets and Highways Code (Caltrans 2022). As described in Section 3.2.1 above, no officially designated or candidate State scenic highways are located within the City of Signal Hill.

3.2.2.2 Signal Hill General Plan

The Land Use Element (2001) and the Environmental Resources Element (1986) of the City of Signal Hill General Plan address aesthetics in goals and policies., as outlined in **Table 3.2-2.**

Table 3.2-2. Applicable City of Signal Hill General Plan Goals and Policies

Element	Goal	Policy	Applicability
Land Use	Goal 3: Assure a safe, healthy, and aesthetically pleasing community for residents and businesses.	Policy 3.3: Ensure a sensitive transition between commercial or industrial uses and residential uses by means of such techniques as buffering, landscaping, and setbacks.	The Facility is walled. All Project operations would continue to be conducted within the existing Project site footprint.
Environmental Resources	Goal 1: Maintain and enhance the identity and aesthetic quality of Signal Hill as a City with striking view potential, and a City that is carefully managing its transition from resource extraction to balanced land uses.	Policy 1.1: Protect views both to and from the Hill and other scenic features. This will extend to all new development, and to major rebuilding and additions.	The Facility site is visually screened around the perimeter and operations would not occur outside the existing perimeter. The Project would not impact views from/of scenic features within Signal Hill.
	Goal 2: Maintain and enhance the City of Signal Hill's unique cultural, aesthetic and historic areas.	Protect and enhance the State Historical Landmark at the Alamitos Well Site #1.	The Project would not impact existing historical structures or areas. Alamitos Well Site #1 is not visible from the Facility.

Source: City of Signal Hill 1986, 2001

The City adopted a view policy and in the Hilltop Area Specific Plan (SP-2), a view ordinance, with the goal of balancing existing residential views and the right of property owners to develop vacant property in accordance with the Hilltop Area Specific Plan or other zoning standards. The Hilltop Area Specific Plan aims to preserve the public view and prohibits construction of new dwellings that may interrupt the unobstructed views from the Hilltop, Sunset View, or Discovery Well parks (City 2001). The "Hilltop Area" is centered on the intersection of Skyline Drive and Hill Avenue, approximately 1.8 miles southeast of the Project Site. The City has established policies related to the preservation of views from this area.

3.2.3 Impact Assessment

AES (a) Would the Project have a substantial adverse effect on a scenic vista?

No Impact. Due to the distance from the "Hilltop Area" and the fact that the Project site is approximately 300 feet lower in elevation, there is no potential for the EDCO Facility to obstruct views from the "Hilltop Area" or conflict with the City policies related to the obstruction of views. The increase in maximum volume of material received each day would have no impact on views of the site. The FEIR determined there were no impacts to scenic vistas. The Project would not result in any different impacts or more severe impacts to scenic vistas than described in the FEIR.

AES (b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The FEIR made a determination of no impact. The Project Site is not located within or adjacent to a State-designated or State-eligible scenic highway. A portion of the Pacific Coast Highway (SR-1) holds the state-eligible scenic highway designation, but is over 2 miles away from the Facility. Due to the distance from this junction, the FEIR determined there were no impacts to State-designated or State-eligible scenic resources. The proposed Project would not result in any changes to the Facility that would adversely affect scenic resources. Therefore, the Project would not result in any different or more severe impacts than described in the FEIR.

AES (c) Would the Project, in nonurbanized 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 FEIR determined the implementation of operational procedures including landscaping, utility line update, and daily litter pick up at the Facility would result in an impact to existing visual characteristics of less than significant. These existing mitigation measures will be continued under this Addendum. The Project site and surrounding area have been previously impacted visually due to the visual condition associated with current and past oil production, an uncoordinated mix of land uses, and lack of infrastructure. The FEIR determined that impact was potentially significant due to the potential for litter generation along access roadways, proposed adopted mitigation measures of specific operational procedures (daily pickup for litter from EDCO operations along designated transportation corridors). A potential increase in truck traffic would increase the chances of inadvertent litter on access roadways. Despite the changes in refuse levels resulting from the Project, the modifications could not be visible from the surrounding sites beyond the drop-offs, changes in operation that have the potential to increase litter would continue to utilize existing mitigation. Therefore, any more severe impact than the existing level of visual degradation would be addressed through existing mitigation, and therefore, would haveno impact on the visual character of the site and its surroundings. Therefore, the Project would not result in any different or more severe impacts than described in the FEIR.

AES (d). Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The FEIR determined there were less than significant to light and glare with mitigation measured proposed. This included “hoods” for lights on site to keep light from spilling offsite, and perimeter screening along the perimeters Olive Ave., 28th St., and California Ave to prevent headlights from impacting the surrounding area. The existing mitigation fences will remain, blocking headlights of any number, and therefore no new impacts from glare would occur as a result of the current Project. An update to the Project tpd limit would not require any ground-disturbing activities or construction that would result in new temporary or permanent light sources. Therefore, the Project would not result in any different or more severe impacts than described in the FEIR.

3.3 Air Quality

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The Project is within the South Coast Air Basin (SCAB) under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of air pollutants throughout the SCAB. Air pollutant emissions within the SCAB are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point sources are boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as barbeque lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, race cars, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and State governments have established ambient air quality standards for outdoor concentrations of various pollutants to protect public health and welfare. These pollutants are referred to as “criteria air pollutants” because of the specific standards, or criteria, which have been adopted for them. The federal and State standards have been set at levels considered safe to protect public health, including the health of “sensitive” populations, such as asthmatics, children, and the elderly with a

margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

3.3.1.1 Criteria Air Pollutants

A criteria air pollutant is any air pollutant for which ambient air quality standards (criteria) have been set by the U.S. Environmental Protection Agency (USEPA) (National Ambient Air Quality Standards [NAAQS]) or California Air Resources Board (CARB) (California Ambient Air Quality Standards [CAAQS]). The presence of these pollutants in ambient air is generally due to numerous diverse and widespread sources of emissions, and air quality standards have been established for these pollutants to protect public health. Criteria pollutants include ozone (O_3), fine particulate matter ($PM_{2.5}$), respirable particulate matter (PM_{10}), carbon monoxide (CO), nitrogen dioxide (NO_2), lead (Pb), sulfur dioxide (SO_2), visibility-reducing particles, sulfates, and hydrogen sulfide (H_2S). **Table 3.3-1** presents the federal and state air quality standards for criteria pollutants. The sections below provide additional details about each of these criteria pollutants.

3.3.1.1.1 Ozone

O_3 is formed in the atmosphere by a series of complex chemical reactions and transformations in the presence of sunlight. Oxides of nitrogen (NO_X) and reactive organic gases (ROGs) are the principal constituents in these reactions. O_3 is a pungent, colorless, toxic gas and is a primary component of smog.

O_3 is known as a secondary pollutant because it is formed in the atmosphere through a complex series of chemical reactions, rather than emitted directly into the air. The major sources of NO_X in California are motor vehicles and other combustion processes. The major sources of ROGs in California are motor vehicles and the evaporation of chemical solvents and fuels.

O_3 is a strong irritating gas that can chemically burn and cause narrowing of airways, forcing the lungs and heart to work harder to provide oxygen to the body. People most likely to be affected by O_3 include the elderly, the young, athletes, and those who suffer from respiratory diseases such as asthma, emphysema, and chronic bronchitis.

3.3.1.1.2 PM_{10}

PM_{10}, or fugitive dust, consists of particulate matter (fine dusts and aerosols) that is ten microns or smaller in aerodynamic diameter. For reference, ten microns is about one-seventh the width of a human hair. When inhaled, particles larger than 10 microns are generally caught in the nose and throat and do not enter the lungs. PM_{10} gets into the large upper branches of the lungs just below the throat, where they are caught and removed (by coughing, spitting, or swallowing).

The primary sources of PM_{10} include dust, paved and unpaved roads, diesel exhaust, acidic aerosols, construction and demolition operations, soil and wind erosion, agricultural operations, residential wood combustion, and smoke. Secondary sources of PM_{10} include tailpipe emissions and industrial sources. These sources have different constituents and therefore, varying effects on health. Airborne particles absorb and adsorb toxic substances and can be inhaled and lodge in the lungs. Once in the lungs, the toxic substances can be absorbed into the bloodstream and carried throughout the body. PM_{10} concentrations tend to be lower during the winter months because meteorology greatly affects PM_{10}

concentrations. During rainfall events, concentrations are relatively low, and on windy days, PM_{10} levels can be high. Photochemical aerosols, formed by chemical reactions with manmade emissions, may also influence PM_{10} concentrations.

Elevated ambient particulate levels are associated with premature death, an increased number of asthma attacks, reduced lung function, aggravation of bronchitis, respiratory disease, and cancer.

Table 3.3-1. Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS (ppm)	CAAQS ($\mu g/m^3$)	NAAQS (ppm)	NAQQS ($\mu g/m^3$)
Ozone (O_3)	1-hour	0.09	180	--	--
	8-hour	0.07	137	0.070	137
Nitrogen Dioxide (NO_2)	1-hour	0.18	339	0.100	188
	Annual	0.03	57	0.053	100
Sulfur Dioxide (SO_2)	1-hour	0.25	655	0.075	196
	3-hour	--	--	0.5	1,300
	24-hour	0.04	105	0.14 (for certain areas)	0.030 (for certain areas)
	Annual arithmetic mean	--	--	0.03	--
Carbon Monoxide (CO)	1-hour	20	0.020	35	0.040
	8-hour	9	0.023	9	0.010
Particulates (as PM_{10})	24-hour	--	50	--	150
	Annual arithmetic mean	--	20	--	--
Particulates (as $PM_{2.5}$)	24-hour	--	--	--	35
	Annual	--	12	--	9.0
Lead (Pb)	30-day	--	1.5	--	--
	Calendar average	--	--	--	1.5 (for certain areas)
	3-month (rolling average)[1]	--	--	--	1.5
Sulfates (as SO_4)	24-hour	--	25	--	--
Hydrogen Sulfide (H_2S)	1-hour	0.03	42	--	--
Vinyl Chloride (C_2H_3Cl)	24-hour	0.01	26	--	--

Source: CARB 2017a and USEPA 2024

Notes:

A rolling average is a calculation to analyze data points by creating series of averages of different subsets of the full data set.
ppm = part(s) per million; $\mu g/m^3$ = microgram(s) per cubic meter

3.3.1.1.3 $PM_{2.5}$

$PM_{2.5}$ is a mixture of particulate matter (fine dusts and aerosols) that is 2.5 microns or smaller in aerodynamic diameter. For reference, 2.5 micrometers is approximately 1/30 the size of a human hair, so small that several thousand of these particles could fit on the period at the end of this sentence. $PM_{2.5}$ can travel into the deepest portions of the lungs where gas exchange occurs between the air and the bloodstream. These particles are very dangerous because the deepest portions of the lungs have no efficient mechanisms for removing them. If these particles are soluble in water, they pass directly into the bloodstream within minutes. If they are not soluble in water, they are retained deep in the lungs and can remain there permanently.

$PM_{2.5}$ particles are emitted from activities such as industrial and residential combustion processes, wood burning, and from diesel and gasoline-powered vehicles. They are also formed in the atmosphere from gases such as SO_2, NO_X, ammonia, and volatile organic compounds that are emitted from combustion activities, and then become particles as a result of chemical transformations in the air (secondary particles).

Exposure to $PM_{2.5}$ increases the risks of long-term disease, including chronic respiratory disease, cancer, and increased and premature death. Other effects include increased respiratory stress and disease, decreased lung function, alterations in lung tissue and structure, and alterations in respiratory tract defense mechanisms.

3.3.1.1.4 Carbon Monoxide

CO is a common colorless, odorless, highly toxic gas. It is produced by natural and anthropogenic combustion processes. The major source of CO in urban areas is incomplete combustion of carbon containing fuels (primarily gasoline, diesel fuel, and natural gas). However, it also results from combustion processes, including forest fires and agricultural burning. Over 80 percent of the CO emitted in urban areas is contributed by motor vehicles. Ambient CO concentrations are generally higher in the winter, usually on cold, clear days and nights with little or no wind. Low wind speeds inhibit horizontal dispersion, and surface inversions inhibit vertical mixing. Traffic-congested intersections have the potential to result in localized high levels of CO. These localized areas of elevated CO concentrations are termed CO “hotspots”. CO hotspots are defined as locations where ambient CO concentrations exceed the CAAQS (20 parts per million (ppm), 1-hour; 9 ppm, 8-hour).

When inhaled, CO does not directly harm the lungs; rather, it combines chemically with hemoglobin, the oxygen-transporting component of blood and diminishes the ability of blood to carry oxygen to the brain, heart, and other vital organs. Red blood cells have 220 times the attraction for CO than for oxygen. This affinity interferes with movement of oxygen to the body’s tissues. Effects from CO exposure include headaches, nausea, and death. High levels of CO in a concentrated area can result in asphyxiation.

3.3.1.1.5 Nitrogen Dioxide

NO_2 is formed in the atmosphere primarily by the rapid reaction of the colorless gas nitric oxide (NO) with atmospheric oxygen. It is a reddish-brown gas with an odor similar to that of bleach. NO_2 participates in the photochemical reactions that result in O_3. The greatest source of NO, and

subsequently NO_2, is the high-temperature combustion of fossil fuels such as in motor vehicle engines and power plant boilers. NO_2 and NO are referred to collectively as NO_X.

NO_2 can irritate and damage the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections such as influenza. Negative health effects are apparent after exposure to NO_2 levels as low as 0.11 ppm for a few minutes. This level of exposure may elicit or alter sensory responses. Higher concentrations (0.–5 - 1.5 ppm) may cause impaired pulmonary function, increased incidence of acute respiratory disease, and difficult breathing for both bronchitis sufferers and healthy persons.

3.3.1.1.6 Lead

Lead is a bluish-gray metal that occurs naturally in small quantities. Pure lead is insoluble in water. However, some lead compounds are water soluble. Lead and lead compounds in the atmosphere often come from fuel combustion sources, such as the burning of solid waste, coal, and oils. Historically, the largest source of lead in the atmosphere resulted from the combustion of leaded gasoline in motor vehicles. However, with the phase-out of leaded gasoline, concentrations of lead in the air have substantially decreased. Industrial sources of atmospheric lead include steel and iron factories, lead smelting and refining, and battery manufacturing. Atmospheric lead may also result from lead in entrained dust and dirt contaminated with lead.

Acute health effects of lead include gastrointestinal distress (such as colic), brain and kidney damage, and even death. Lead also has numerous chronic health effects, including anemia, central nervous system damage, reproductive dysfunction, as well as effects on blood pressure, kidney function, and vitamin D metabolism. The USEPA's Office of Air Quality Planning and Standards ranks lead as a "high concern" pollutant based on its severe chronic toxicity.

3.3.1.1.7 Sulfur Dioxide

SO_2 is a colorless gas with a sharp, irritating odor. It can react in the atmosphere to produce sulfuric acid and sulfates, which contribute to acid deposition and atmospheric visibility reduction. It also contributes to the formation of PM_{10}. Most of the SO_2 emitted into the atmosphere is from the burning of sulfur-containing fossil fuels by mobile sources, such as marine vessels and farm equipment, and stationary fuel combustion.

SO_2 irritates the mucous membranes of the eyes and nose, and may also affect the mouth, trachea, and lungs, causing sore throat, coughing, and breathing difficulties.

3.3.1.2 Other Issues of Concern

3.3.1.2.1 Odors

Odors are substances in the air that pose a nuisance to nearby land uses such as residences, schools, daycare centers, and hospitals. Odors are typically not a health concern but can interfere with the use and enjoyment of nearby property. Odors may be generated by a wide variety of sources. The odor associated with decomposing organic material (such as organic refuse left to decay) may also be considered to be objectionable. Objectionable odors created by a Facility or operation may cause a nuisance or annoyance to adjacent populations.

3.3.1.2.2 Fugitive Dust

Fugitive dust refers to solid particulate matter that becomes airborne because of wind action and human activities. Fugitive dust particles are mainly soil minerals, but can also be sea salt, pollen, spores, tire particles. About half of fugitive dust particles (by weight) are larger than 10 microns and settle quickly. Fugitive dust particles 10 microns or smaller (i.e., PM_{10}) can remain airborne for weeks.

The primary sources of fugitive dust are grading and excavation operations associated with road and building construction, aggregate mining and processing operations, and sanitary landfill operations. Unpaved roadways are also a large source of fugitive dust. Other sources of fugitive dust include demolition activities, unpaved roadway shoulders, vacant lots, material stockpiles, abrasive blasting operations, and off-road vehicle use. The amount of fugitive dust created by such activities is dependent largely on the type of soil, type of operation taking place, size of the area, degree of soil disturbance, soil moisture content, and wind speed.

When fugitive dust particles are inhaled, they can travel easily to the deep parts of the lungs and may remain there, causing respiratory illness, lung damage, and even premature death in sensitive people. Fugitive dust may also be a nuisance to those living and working nearby. Dust blown across roadways can lead to traffic accidents by reducing visibility. Fugitive dust can soil and damage materials and property, such as fabrics, vehicles, and buildings. Particulates deposited on agricultural crops can lower crop quality and yield. Additionally, fugitive dust can lead to the spread of San Joaquin Valley Fever, a potential health hazard caused by a fungus that lives in certain soil types throughout California.

3.3.1.3 Existing Regional Air Quality

Measurements of ambient concentrations of the criteria pollutants are used by the USEPA and CARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with national and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in "attainment." If the pollutant exceeds the standard, the area is classified as a "nonattainment" area. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified."

The Los Angeles County portion of the SCAB is designated by the USEPA as a nonattainment area for ozone, lead, and $PM_{2.5}$; an attainment area for PM_{10}; and an attainment/unclassified area for NO_2. The SCAB is designated by CARB as a state-level nonattainment area for ozone, $PM_{2.5}$, and PM_{10} and as an attainment area for lead, CO, NO_2, and SO_2. **Table 3.3-2** shows the attainment status of the SCAB for the state and federal standards.

Table 3.3-2. South Coast Air Basin Attainment Status

Pollutant	Attainment Status	
	CAAQS	NAAQS
Ozone (O_3)	Nonattainment	Extreme Nonattainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Unclassified/Attainment
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Particulates (as PM_{10})	Nonattainment	Attainment
Particulates (as $PM_{2.5}$)	Nonattainment	Serious Nonattainment
Lead (Pb)	Attainment	Nonattainment (Los Angeles County Portion)

Source: CARB 2023a.

The SCAQMD divides the SCAB into 37 source receptor areas (SRAs) in which 42 monitoring stations currently operate to monitor concentrations of air pollutants in the region (SCAQMD 1999). The Project is located within SRA 4. For the purposes of background data and this air quality analysis, this analysis relied on data collected in the last three years for the CARB monitoring stations that are located in the closest proximity to the Project Site. **Table 3.3-3** provides the background concentrations from 2020 through 2022 (the latest data available) for O_3, CO (1-hour and 8-hour averaging period), NO_2, PM_{10}, $PM_{2.5}$, SO_2, and Pb. Information is provided for monitoring stations #072, 077, 033, and 039).

Table 3.3-3 Local Air Quality Levels

Pollutant and Monitoring Station Location	Maximum Concentration			Days Exceeding Standard		
	2020	2021	2022	2020	2021	2022
O_3 – 1-hour CAAQS (0.09 ppm)						
Long Beach – Signal Hill	0.105	0.086	0.108	4	0	1
Long Beach – 2425 Webster Street	*	*		*	*	*
Compton – 700 North Bullis Road	0.152	0.085	0.111	3	0	1
O_3 – 8-hour CAAQS (0.07 ppm)						
Long Beach – Signal Hill	0.083	0.065	0.77	4	0	1
Long Beach – 2425 Webster Street	*	*	*	*	*	*
Compton – 700 North Bullis Road	0.115	0.077	0.085	4	1	1
O_3 – 8-hour NAAQS (0.070 ppm)						
Long Beach – Signal Hill	0.083	0.064	0.77	4	0	1
Long Beach – 2425 Webster Street	*	*	*	*	*	*
Compton – 700 North Bullis Road	0.115	0.076	0.085	4	1	1
PM_{10} – 24-hour CAAQS (50 µg/m^3)						
South Long Beach	68.7	49.7	50.3	3	0	0
Long Beach – 2425 Webster Street	61.4	*	*	3	*	*
PM_{10} – 24-hour NAAQS (150 µg/m3)						
Long Beach – Signal Hill	*	*	57.9	*	*	0
South Long Beach	68.3	48.7	48.9	0	0	0
Long Beach – 2425 Webster Street	61.6	*	128.6	0	*	0

Pollutant and Monitoring Station Location	Maximum Concentration			Days Exceeding Standard		
	2020	2021	2022	2020	2021	2022
$PM_{2–5}$ - 24-hour NAAQS (35 µg/m³)						
Long Beach – Signal Hill	*	*	26.7	*	*	0
South Long Beach	63.7	42.9	26.6	10	4	0
North Long Beach	66.0	41.2	20.0	4	1	0
Long Beach – Route 710 Near Road	65.7	84.6	39.0	12	7	1
CO - 8-Hour CAAQS & NAAQS (9.0 ppm)						
No data collected	--	--	--	--	--	--
NO_2 - 1-Hour CAAQS (0.18 ppm)						
Long Beach – Signal Hill	0.075	0.059	0.058	0	0	0
Compton – 700 North Bullis Road	0.072	0.068	0.065	0	0	0
Long Beach – Route 710 Near Road	0.100	0.091	0.095	0	0	0
NO_2 - 1-Hour NAAQS (0.10 ppm)						
Long Beach – Signal Hill	0.075	0.059	0.058	0	0	0
Compton – 700 North Bullis Road	0.072	0.068	0.064	0	0	0
Long Beach – Route 710 Near Road	0.100	0.092	0.095	0	0	0
SO_2 – 24-hour Concentrati–n - CAAQS (0.04 ppm) & NAAQS (0.14 ppm)						
No data collected	--	--	--	--	--	--
Pb - Maximum 30-Day Concentration CAAQS (1500 ng/m³)						
Los Angeles – North Main Street	8.6	*	*	*	*	*

Source: CARB 2023b

Notes:

ppm= parts per million

* There was insufficient (or no) data available to determine the value.

3.3.1.4 Sensitive Receptors

Some population groups, such as children, the elderly, and acutely and chronically ill persons are considered more sensitive to air pollution than others. Sensitive receptor locations typically include residential areas, hospitals, elder-care facilities, rehabilitation centers, daycare centers, and parks. The Project site is in an urban area surrounded by oilfield operations and commercial development.

Sensitive receptors in proximity to the Facility include healthcare facilities and nursing homes, commercial business, place of worship, and single-family residences. **Table 3.3-4** summarizes the sensitive receptors in the Project area and distance to the nearest Project components.

Table 3.3-4 Sensitive Receptors in Proximity to the Facility.

Direction from Project Site	Sensitive Receptor	Distance to Nearest Project Component
Northwest	K Wellness Holistic Health Spa (701 E. 28th St.)	520 feet
Northwest	Nagourney Cancer Institute (750 E. 29th St.)	565 feet
West	Lung and Allergy Health Associates (2790 Atlantic Ave.)	560 feet
West	Memorial Orthopedic Surgical Group (2760 Atlantic Ave.)	460 feet
West	Atlantic Memorial Healthcare Center (2750 Atlantic Ave.)	475 feet

Direction from Project Site	Sensitive Receptor	Distance to Nearest Project Component
East	Willow Spring Park (2745 Orange Ave.)	860 feet
Southwest	Single Family Residences (Lime Ave.)	625 feet
South	Long Beach Islamic Center (995 E. 27th St)	225 feet
South	Cal Institute of EMT Training Institute (2669 Myrtle Ave.)	380 feet
South	Single Family Residences (E. Walton St.)	700 feet

3.3.2 Regulatory Setting

3.3.2.1 Federal

3.3.2.1.1 Clean Air Act

The USEPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside of state waters (Outer Continental Shelf). USEPA is responsible for implementing the CAA, which is the comprehensive federal law that regulates air emissions from stationary and mobile sources.

The CAA is designed to attain compliance with the NAAQS adopted by the USEPA (42 United States Code (U.S.C.) §7409). USEPA has adopted NAAQS for ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$. (40 CFR Part 50). For planning purposes, USEPA has divided the country into separate "air quality control regions" (42 U.S.C. §7407; 40 CFR Part 81). USEPA must determine whether each air quality region is in "attainment" or "nonattainment" of the NAAQS for each criteria pollutant (42 U.S.C. §7407(d)(4); 42 U.S.C. §7501(2)). Once a region is designated as in nonattainment, the CAA requires states to prepare a "state implementation plan" (SIP) (42 U.S.C. §7410). Each SIP must provide for: (1) "implementation of all reasonably available control measures as expeditiously as practicable," and (2) the attainment of the NAAQS. USEPA must review and approve each proposed SIP (42 U.S.C. §7410(a)(1)).

The SCAB is an air quality control region under the CAA. The SCAQMD is responsible for preparing the SCAB's "Air Quality Management Plan" (AQMP) (Health and Safety Code §40408). The AQMP serves as the SIP under the CAA (Health and Safety Code §40460). The AQMP sets forth a variety of general "control measures" designed to attain and maintain the NAAQS within the SCAB (Health and Safety Code §40913).

The CAA is organized into seven main sections:

- Title I – Air Pollution Prevention and Control
- Part A – Air Quality and Emission Limitations
- Part B – Ozone Protection
- Part C – Prevention of Significant Deterioration (PSD) of Air Quality
- Part D – Plan Requirements for Nonattainment Areas
- Title II – Emission Standards for Moving Sources
- Part A – Motor Vehicle Emission and Fuel Standards
- Part B – Aircraft Emission Standards
- Part C – Clean Fuel Vehicles

- Title III – General Provisions
- Title IV – Noise Pollution
- Title IV-A – Acid Deposition Control
- Title V – Permits
- Title VI – Stratospheric Ozone Protection

Title I Part C of the CAA is Prevention of Significant Deterioration (PSD), which applies to new major sources or major modifications at existing sources for pollutants where the area that the source is located in is in attainment or unclassifiable with the NAAQS. It requires installation of the "Best Available Control Technology" (BACT), an air quality analysis, an additional impacts analysis, and public involvement. PSD review will not be required for the Project, because it does not constitute a new major source or major modification to an existing source (physical change to existing equipment). Title III of the CAA regulates TACs and is applicable to the Project as analyzed in Chapter 4. Title V of the CAA establishes a federal permit program. The Title V program is implemented by the SCAQMD for areas within its jurisdiction via SCAQMD Regulation XXX – Title V Permits. Title V permits incorporate all federally enforceable requirements as well as state and local requirements.

3.3.2.2 State

3.3.2.2.1 California Clean Air Act

The California Clean Air Act (CCAA) was adopted by CARB in 1988. The CCAA is responsible for meeting the state requirements of the Federal CAA and for establishing the CAAQS. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The CCAA, as amended in 1992, requires all air districts of the state to achieve and maintain the CAAQS by the earliest practical date.

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous 3 calendar years. As shown in **Table 3.3-1**, the CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment.

3.3.2.2.2 Toxic Air Contaminants Regulation

Toxic Air Contaminant (TAC) sources include industrial processes, dry cleaners, gasoline stations, paint and solvent operations, and fossil fuel combustion sources (i.e., Diesel Particulate Matter [DPM]).

In August 1998, CARB identified DPM emissions from diesel-fueled engines as a TAC. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel fueled engines and vehicles. The goal of the plan is to reduce diesel PM_{10} (inhalable particulate matter) emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identified 14 measures that target new and existing on-road vehicles (e.g., heavy duty

trucks and buses, etc.), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps, etc.), and stationary engines (e.g., stand-by power generators, etc.).

3.3.2.3 Regional

3.3.2.3.1 South Coast Air Quality Management District (SCAQMD)

The SCAQMD has jurisdiction over the SCAB. The 1977 Lewis Air Quality Management Act merged four air pollution control districts to create the SCAQMD to coordinate air quality planning efforts throughout southern California. It is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and federal ambient air quality standards. Programs include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

All areas designated as non-attainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures. The Southern California Association of Governments (SCAG) assists by preparing the transportation portion of the AQMP. On December 2, the SCAQMD adopted its 2022 AQMP (SCAQMP), which is now the legally enforceable plan for meeting the 24-hour $PM_{2.5}$ strategy standard.

In addition to criteria pollutants, the SCAQMD also regulates air toxics. A cornerstone of its work was the development of the Multiple Air Toxics Exposure Study (MATES-V). The monitoring program measured a broad list of air pollutants, including both gases and particulates, and estimated the risk of cancer from breathing toxic air pollution throughout the region (SCAQMD 2021).

In its role as the local air quality regulatory agency, the SCAQMD also provides guidance on how environmental analyses should be prepared. This includes recommended thresholds of significance for evaluating air quality impacts. To determine whether air quality impacts from the Project may be significant, impacts will be evaluated and compared to the criteria in **Table 3.3-5**. If impacts equal or exceed any of the criteria in **Table 3.3-5**, they are considered significant.

Table 3.3-5. SCAQMD Air Quality Mass Daily Significance Thresholds

Pollutant	Mass Daily Thresholds (Construction)	Mass Daily Thresholds (Operation)
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

Pollutant	Mass Daily Thresholds (Construction)	Mass Daily Thresholds (Operation)
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor or nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2019.

lbs/day = pounds per day

SCAQMD is currently in the process of developing an "Air Quality Analysis Guidance Handbook" (Handbook) to replace the SCAQMD CEQA Handbook. Until the Air Quality Analysis Guidance Handbook becomes available, the SCAQMD provides supplemental information to assist in air quality analysis. Specifically, the SCAQMD provides Localized Significance Thresholds (LSTs) for projects that are five acres or less. To provide a conservative assessment, the Project site is considered a 2-acre site located 100 meters (328.08 feet) from a sensitive receptor for the purpose of comparing to the relevant LSTs. The Project is located in SRA 4 (South Coastal LA County). Accordingly, the emissions thresholds for SRA 4 for receptors located 100 meters from a Project site as summarized in **Table 3.3-6**, are used to determine whether air quality impacts from the Project within the SCAQMD may be significant.

Table 3.3-6. Emission Localized Significance Thresholds for Construction and Operation (2-Acre Project Site, 100 Meters from Sensitive Receptor)

Pollutant	Localized Significance Thresholds	
	Construction	Operation
NO_x	87 lbs/day	87 lbs/day
CO	1,611 lbs/day	1,611 lbs/day
PM_{10}	37 lbs/day	9 lbs/day
$PM_{2.5}$	13 lbs/day	4 lbs/day

Source: SCAQMD 2008.

SCAQMD Rules

The SCAQMD has established various rules to manage air quality in the SCAB. The following rules are applicable to the Project:

- **Rule 401 (Visible Emissions)** applies to visible emissions for more than three (3) minutes within any given hour from either stationary sources or mobile sources.
- **Rule 402 (Nuisance)** states that a person should not emit air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 (Fugitive Dust)** controls fugitive dust through various requirements including, but not limited to, applying water in sufficient quantities to prevent the generation of visible dust

plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project site, and maintaining effective cover over exposed areas.

- **Rules 404 and 405 (Particulate Matter- Concentration and weight)** limits the particulate matter that can be discharged into the atmosphere. These rules are applicable to the operation of the Transfer Station.
- **Rule 407 (Liquid and Gaseous Air Contaminants)** limits the amount of CO and sulfur compounds such as sulfur dioxide (SO_2) that can be discharged into the atmosphere. This rule will apply to Project operations.
- **Rule 409 (Combustion Contaminants**) limits the amount of CO_2 that can be discharged into the atmosphere. This rule applies to Project operations.
- **Rule 410 (Odors from Transfer Stations and Material Recovery Facilities)** establishes odor management practices and requirements so as to reduce odors from transfer stations and material recovery facilities.
- **Rule 473 (Disposal of Solid and Liquid Wastes)** requires that the burning of waste only be incinerated in devices approved by an Air Pollution Control Officer.
- **Rule 1193 (Clean On-Road Residential and Commercial Refuse Collection)** requires public and private solid waste collection fleet operators to acquire alternative-fuel refuse collection heavy-duty vehicles (gross vehicle weight of 14,000 pounds or more) when procuring or leasing these vehicles for use by or for governmental agencies in the SCAQMD to reduce air toxic and criteria pollutant emissions. EDCO has indicated that their entire fleet of collection vehicles is fueled by RNG and thus meets the requirements of this rule.

3.3.3 Impact Assessment

3.3.3.1 Air Quality Significance Thresholds

In accordance with Appendix G to the state CEQA Guidelines, the Project would have a significant impact on air quality if it would result in:

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

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable Federal or State ambient air quality standard.

c. Expose sensitive receptors to substantial pollutant concentrations.

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

SCAQMD also provides Air Quality Significance Thresholds (SCAQMD 2019) to assess the impact of Project-related air pollution emissions. **Table 3.3-5** presented above details these significance thresholds. A Project with daily emission rates below these thresholds is considered to have a less than

significant impact on regional air quality and to not make a considerable contribution to a cumulative impact.

In addition, as detailed in **Section 3.3.2**, the SCAQMD provides LSTs for projects that are five acres or less. To provide a conservative assessment, a 2-acre Project site located 100 meters (328.08 feet) from sensitive receptors is assumed for the purpose of comparing to the relevant LSTs. The Project is located in SRA 4. Accordingly, the emissions thresholds for SRA 4 for receptors located 100 meters from individual project sites as summarized in **Table 3.3-6** presented in **Section 3.3.2** above, are used to determine whether air quality impacts from the Project within the SCAQMD may be significant.

3.3.3.2 Methodology

This impacts analysis evaluates the potential for the Project (described in Section 2.2) to impact the air quality resource within the Project area. The Project would not require modification or expansion of the Facility; thus impacts are limited to additional vehicle trips and increase in operational activity at the Project site. A Project-specific air quality analysis was conducted and is summarized in the impact discussion below (Section 3.3.3.3); the full analysis titled Air Quality and Greenhouse Gas Impact Analysis and Technical Report is included as Appendix D to this Addendum.

Project-related emissions were estimated using the latest version of California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operation of a variety of land use projects. The model utilizes widely accepted federal and state models for emission estimates and default data from sources such as U.S. EPA AP-42 emission factors, CARB vehicle emission models, and studies from California agencies such as the California Energy Commission (CEC). CalEEMod inputs for Project activities consist of the data provided for VMT and off-road equipment as detailed in **Table 2.5-2** and **Section 2.5.2**. The analysis of long-term operational impacts also used the CalEEMod computer model for mobile and off-road source emissions associated with the expanded operations as detailed in **Section 2.5**. As noted in **Section 2.5.1**, EDCO has converted the entire fleet of collection trucks to RNG powered vehicles. Accordingly, exhaust emission factors for the collection vehicle trips were adjusted in the CalEEMod model based on emission factors from the CARB emission factor model EMFAC2021 specific for natural gas-powered solid waste collection vehicles (SWCV) as specified for category “T7 SWCV Class 8.” With respect to net GHG emissions associated with RNG, this analysis also relies on GHG emission factors that are obtained from the California Climate Investments Emission Factor Database (CARB 2023c).

For the evaluation of health risks associated with the Project, the analysis below relies upon the results of the Health Risk Assessment conducted for the Facility as included in the FEIR. The Health Risk Assessment conducted in 2009 included emissions associated with off-road equipment and on-road mobile sources. The primary toxic pollutant considered in the analysis was DPM. Note that off-site emissions released from transport trucks along the highways and roadways were determined to be a result in insignificant air quality and health impacts since they would be distributed and diluted over a relatively wide area (100 square miles, or greater). Accordingly, on-site emissions localized to the Project site were considered in the analysis of health impacts on nearby sensitive receptors. Operational on-site emissions analyzed included mobile and idling emissions associated with 340 collection trucks, 600 self-

haul vehicles, 136 transfer trucks, 50 employee vehicles traveling to and from the Facility, as well as emissions associated with off-road diesel equipment during truck unloading. The health risk assessment assumed that DPM emissions would remain the same for the next 70 years with residential cancer risk assuming a lifetime of exposure (i.e., 24-hours per day, 7 days per week over 70 years) and worker cancer risk assuming 40 years of exposure (i.e., 8 hours per day for 50 weeks per year). However, in reality DPM emissions associated with Project operations have significantly decreased with the transition of the entire collection truck fleet to renewable natural gas vehicles. The conservative results of the health risk assessment for operations handling up to 1,500 tpd of refuse indicated that the maximum cancer risk at the nearest residential sensitive receptor (625 feet southwest of the Facility) would be between 0.5 to less than 0.01 cancer per one million depending on the location. The maximum cancer risk at the nearest business location (150 feet west of the Facility) was estimated to be 0.1 cancers per one million.

3.3.3.3 Impact Discussion

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

Less than Significant. The FEIR determination was less than significant, using the 2003 AQMP as the applicable air quality plan according to SCAQMD guidelines at the time of its publishing. Under this criterion, the SCAQMD recommends demonstration that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment) upon which the air quality plan is based. As demonstrated for *Impact Criteria (b)* below, the Project's long-term (operational) emissions will be below levels that the SCAQMD considers to be a significant impact. As such, the 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 timely attainment of air quality standards.

Conformance with the SCAQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections, meeting the land use designation set forth in the local General Plan, and comparing assumed emissions in the SCAQMP to proposed emissions. Although the Project does not propose changes to the existing land use, operations will remain consistent with the General Industrial Specific Plan land use as designated in the City of Signal Hill Land Use Element. Further, while the Project would require up to approximately 50 additional workers per day, these jobs would be expected to be filled from the local labor market. Thus, it is not anticipated that a substantial number of workers would move to the region to work at the Facility. Accordingly, the Project would not significantly affect any regional population, housing, and employment projections prepared for the region.

Projects that are consistent with the projections of employment and population forecasts identified in the RTP/SCS prepared by SCAG are considered consistent with the SCAQMP growth projections, since the RTP/SCS forms the basis of the land use and transportation control portions of the SCAQMP. According to the SCAQMP, the SCAB had a population of 16.7 million in 2018 and is projected to have a population of 17.2 million by the year 2027 (these numbers are derived from the 2020-2045 RTP/SCS prepared by SCAG). According to the Growth Forecast Technical Report prepared by SCAG for the 2020-2045 RTP/SCS, the City is projected to increase employment by 800 employees from 2020 through 2035.

The number of employees that will be added as a result of the Project is well within SCAG's growth forecast for the City.

The Project would also comply with CARB requirements to minimize emissions from on-road and off-road diesel equipment as set forth in CCR Title 13, Sections 2485 and 2449. Pursuant to SCAQMD Rule 403, the Project would be required to comply with regulations for controlling fugitive dust. As noted in Section 1.2.3, the entire fleet of collection vehicles is comprised of RNG powered trucks, thus in ahead of the implementation schedule specified by SCAQMD Rule 1193 which requires operators to acquire alternative-fuel refuse collection heavy-duty vehicles.

Thus, the Project would not conflict with the regional growth forecast and distribution assumptions in the SCAQMP. Because the Project complies with local land use plans and growth projections and would not exceed SCAQMD's regional mass daily emissions thresholds, the Project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be *less than significant*. Therefore, the Project would not result in any new or more severe impacts than as described in the FEIR.

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

Less than Significant. The FEIR determined an impact of less than significant for the operation of the Project; no new impacts were identified for the impact of criteria pollutants under non-attainment for the region. Misting systems are used to control the flow of particles outside of the Facility, and is part of the existing measure of approval. Due to a lack of more severe or new impacts, this addendum makes a determination of less than significant for applicable ambient air quality standards. As shown in **Table 3.3-2**, the criteria pollutants for which the Project area is in nonattainment under CAAQS are O_3, PM_{10}, and $PM_{2.5}$, and in extreme nonattainment for O_3, serious nonattainment for $PM_{2.5}$, and nonattainment for Pb under NAAQS. The SCAQMD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. Expanded operations at the Facility would result in the long-term increase in criteria pollutant emissions from engine exhaust during on-road vehicle and truck trips and off-road equipment operations. As noted in **Section 2.2**, with the exception of the additional off-road equipment use, handling and processing of the additional 1,000 tpd would not substantially increase energy or water consumption at the Facility, nor would other area source emissions (e.g., consumer product use and architectural coating application) change from existing conditions. **Table 3.3-7** summarizes the estimated unmitigated maximum daily emissions during operations. For the purpose of comparing Project-related emissions to the SCAQMD LST, mobile-source emissions were excluded (i.e., only emissions generated at the Facility are compared to the LST as mobile-source emissions associated with vehicle travel to/from the Facility would be more broadly dispersed throughout the region and would not represent a localized risk to sensitive receptors near the Facility)

Table 3.3-7. Unmitigated Maximum Daily Project Operations-Generated Emissions

Pollutant	Total Project Emissions (lbs/day)	SCAQMD Threshold (lbs/day)	Onsite Localized Project Emissions (lbs/day)[1]	SCAQMD LST Threshold (lb/day)	Exceed Thresholds?
ROG	1.97	75	0.08	--	No
NO_X	20.19	100	0.77	87	No
CO	29.55	550	0.50	1,611	No
SO_2	0.21	150	0.002	--	No
PM_{10}	10.31	150	0.03	9	No
$PM_{2.5}$	2.87	55	0.02	4	No

Source: CalEEMod Results in Attachment C

Note that emissions are representative of the maximum daily output (i.e., maximum of summer or winter results).

[1] For the purpose of comparing to the LST, mobile-source emissions (i.e., emissions associated with vehicle travel to/from the Facility which are reflective of emissions that are widely dispersed throughout the City and not reflective of localized emissions).

As summarized in **Table 3.3-7**, unmitigated operations-related ROG, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$ would be below the SCAQMD significance thresholds. Although the Project emissions would not exceed the SCAQMD thresholds, on-road vehicles and off-road equipment must comply with the anti-idling requirements set forth in CCR Title 13, Sections 2485 and 2449 and SCAQMD Rule 403 regulations for controlling fugitive dust which would further reduce impacts associated with fugitive dust emissions. The SCAQMD *White Paper on Potential Control Strategies to Address Cumulative Impacts* (2003) addresses cumulative impacts of air pollution and notes that projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. Specifically, the SCAQMD cumulative significance thresholds are the same as project-specific significance thresholds. Therefore, potential adverse impacts associated with the Project would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. The court upheld the SCAQMD's approach to utilizing the established significance thresholds to determine whether the impacts of a project would be cumulatively considerable in *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) Cal. App. 4th 899. Thus, it may be concluded that expanded operation at the Facility would not significantly contribute to an existing violation of air quality standards for regional pollutants (e.g., ozone) and will not contribute to a significant and unavoidable cumulative air quality impact. In terms of local air quality, the Project activities would not produce significant emissions exceeding the SCAQMD's LSTs for NO_X, CO, PM_{10}, or $PM_{2.5}$. Therefore, the Project's potential to result in a cumulatively considerable net increase of any criteria pollutant during operations is considered less than significant. Therefore, the Project would not result in any new or more severe impacts than as described in the FEIR.

AIR (c). Would the Project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Land uses that are generally considered more sensitive to air pollution than others are as follows: hospitals, schools, residences, playgrounds, child-care centers, athletic facilities, and retirement/convalescent homes. As summarized in **Table 3.3-4** above, several sensitive receptors surround the Project site. The FEIR determined an impact of less than significant for the operation of the original project; mitigations employed include: emissions would occur within the enclosed building, use

of misting systems, ventilation with mechanical filters to avoid visible dust plumes from exhaust events, and rule compliance on the diesel equipment and SCAQMD and CARB's NOx and PM_{10} emissions (as it was current in 2009). These previously approved mitigation measures are part of the existing project and are continued as part of the operational baseline of the Facility.

Project operations would result in long-term Project-generated emissions of DPM, ROG, NO_X, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment and operations-related vehicle traffic. As discussed above, SCAQMD has developed LST look-up tables for project sites that are one, two, and five acres in size to simplify evaluation of localized emissions at small sites. LSTs are provided for each source receptor area and various distances from the source of emissions and represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards in the affected area. As discussed for *Impact Criteria (b)* above, operational emissions were calculated with SCAQMD's CalEEMod model. The predicted emissions associated with the Project are presented in **Table 3.3-4** above. As shown in **Table 3.3-4**, operation activities would not exceed the SCAQMD's LST for the specified pollutants for receptors that are within 100 meters of the Facility. Therefore, based on SCAQMD guidance, localized emissions of criteria pollutants would not have the potential to expose sensitive receptors to substantial concentrations that would present a public health concern.

The primary TAC that would be generated by on-road and off-road activities is DPM which would be released from the exhaust stacks of off-road equipment and diesel transfer trucks. According to SCAQMD methodology, health risks from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 30-year period will contract cancer based on the use of standard risk-assessment methodology. As summarized in **Section 3.3.3.2**, a Health Risk Assessment was conducted for the Facility as part of the FEIR. The Health Risk Assessment conducted in 2009 included emissions associated with off-road equipment and on-road mobile sources. The primary toxic pollutant considered in the analysis was DPM. Note that for the purposes of the Health Risk Assessment, off-site emissions released from transport trucks along the highways and roadways were determined to result in less than significant air quality and health impacts since they would be distributed and diluted over a relatively wide area (100 square miles, or greater). Accordingly, on-site emissions localized to the Project site were considered in the analysis of health impacts on nearby sensitive receptors. Operational on-site emissions analyzed included mobile and idling emissions associated with 340 collection trucks, 600 self-haul vehicles, 136 transfer trucks, 50 employee vehicles traveling to and from the Facility, as well as emissions associated with off-road diesel equipment during truck unloading. The assumptions used in the 2009 Health Risk Assessment are greater than those associated with the proposed Project. The Health Risk Assessment assumed that DPM emissions would remain the same for the next 70 years with residential cancer risk assuming a lifetime of exposure (i.e., 24-hours per day, 7 days per week over 70 years) and worker cancer risk assuming 40 years of exposure (i.e., 8 hours per day for 50 weeks per year). However, in reality DPM emissions associated with Project operations have significantly decreased with the transition of the entire collection truck fleet to renewable natural gas vehicles. The conservative results of the Health Risk Assessment for operations handling up to 1,500 tpd of refuse indicated that the maximum cancer risk at the nearest sensitive receptor (500 feet south of the Facility) would be between 0.5 to less than 0.01 cancer per one million depending on the location. The maximum cancer risk at the nearest business location (150 feet west of the Facility) was estimated to be 0.1 cancers per one million.

These results are below the SCAQMD thresholds of cancer risks of less than 10 cancers per one million or 0.5 excess cancer cases (in areas ≥ 1 in 1 million). The proposed expanded maximum daily tonnage at the Facility would result in less truck trips and off-road equipment activity as was considered in the 2009 Health Risk Assessment. Further, the entire fleet of collection trucks has since been replaced with RNG powered vehicles. Thus, the health risks associated with the Project would be less than was modeled in the original Health Risk Assessment completed for the Facility for the 2009 FEIR. Compliance with CARB Heavy-Duty On-Road and Off-Road Vehicle Regulations that limit idling to no more than five minutes would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions.

As noted in **Section 2.1.6**, the Facility is designated as a PHHWCF. The handling and transport of hazardous waste collected by the Facility is regulated by CCR Title 22, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*, as well as other State and federal regulations. Required compliance with hazardous waste handling, transport, and disposal regulations would ensure sensitive receptors are not exposed to substantial concentrations TACs resulting from continued operation of the PHHWCF at the Facility.

Long-term operations of the Project would generate additional traffic that produces off-site emissions, potentially contributing to localized concentrations of "CO hotspots." Specifically, vehicle exhaust is the primary source of CO. In an urban setting, the highest CO concentrations are generally found within close proximity to congested intersections. A "CO hotspot" is a localized concentration of CO that is above the State or national one-hour or eight-hour CO ambient air standards. Projects may worsen air quality if they increase the percentage of vehicles in cold start modes by two percent or more; significantly increase traffic volumes (by five percent or more) over existing volumes; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at Level of Service (LOS) E or F or causing an intersection that would operate at LOS D or better without the Project, to operate at LOS E or F. While the Project would generate additional traffic on the local roadways, the traffic study completed for the Project attached to this Addendum in Appendix C demonstrates that the net increase of vehicle trips to the existing traffic volumes on the local roadways would be relatively small and would not increase average delay at intersections operating at LOS E or F and would not contribute to a decrease of LOS along circulation routes. Accordingly, Project-related vehicle trips are not expected to result in exceedances of CO air quality standards at roadways in the area due to three key factors. First, CO hotspots are extremely rare and only occur in the presence of unusual atmospheric conditions and extremely cold conditions, neither of which applies to this Project area. Second, auto-related emissions of CO continue to decline because of advances in fuel combustion technology in the vehicle fleet. Finally, the traffic study conducted for the Project demonstrates that the Project would not substantially worsen conditions on local roads.

In summary, the Project would not contribute to an increase in health risk associated with TACs, including DPM and would not contribute to localized "CO hotspots." Compliance with CCR Title 22, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*, as well as the anti-idling requirements set forth in CCR Title 13, Sections 2485 and 2449, would further ensure sensitive receptors are not exposed to substantial pollutant concentrations. Therefore, the Project's operational air quality impacts on local sensitive receptors would be *less than significant*, and the Project would not result in any new or more severe impacts than described in the FEIR.

AIR (d). Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. The FEIR made an impact determination of less than significant, with operational BMPs to ensure odor control for the Project. These include: closed doors outside of active refuse collection, cleaning the tipping floor as needed, utilizing a sweeper in the outside area of the site, and spraying bales of odorous recycled materials before shipment. The handling of refuse, green waste and recyclable material has the potential to release odors. These materials are processed inside the Facility buildings. These buildings are equipped with a misting system that spray water and odor neutralizers to mitigate dust and odors. The building ventilation system also includes roof mounted exhaust fans equipped with filters to retain dust. Implementation of the Project would not result in new sources of odors or substantial changes to the intensity of existing odors at the Facility. Further, waste arriving at the EDCO Station is required by law to be covered or transported in enclosed vehicles. Waste is unloaded inside the enclosed processing structure. Since all the processes would occur inside an enclosed building, uncontrolled odors could not migrate off-site. The fans and misting system effectively treat odors and dust prior to discharge into the atmosphere. As noted previously, the Facility is subject to SCAQMD permit requirements and specifically the prohibitory Rule 410 which establishes odor management practices and requirements to reduce odors from transfer stations and MRFs. Further, nonrecyclable solid waste is compacted and transported off-site to the final disposal facility (e.g., landfill) within 48 hours, in accordance with State regulations for solid waste handling (CCR Title 14, Division 7, Chapter 3, Minimum Standards for Solid Waste Handling and Disposal) minimizing odors from the decomposition of organic matter during transport and at the Facility. Therefore, the Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be *less than significant*. Therefore, the Project would not result in any new or more severe impacts than as described in the FEIR.

3.4 Biological Resources

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the Project:				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Environmental Setting

The Environmental Resources Element of the City General Plan describes the biological resources present in Signal Hill. Historically, the dominant plant community in the City was coastal sage scrub. However, following development of the area, this native community has been replaced by ruderal species due to brush clearing activities. Remnants of sage scrub communities may be found in some of the brushy, open areas adjacent to existing oil wells within the city limits (City of Signal Hill 1986). Available habitat in Signal Hill is degraded and as such, most animals are expected to be common, widespread, and highly adaptable species. No plant or wildlife species designated as rare, threatened, or endangered by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), or California Native Plant Society (CNPS) have been located or are expected to occur within the City of Signal Hill (City of Signal Hill 1986).

A biological resources survey was prepared for an immediately adjacent site in August 2006 to characterize the existing vegetation communities and potential wildlife habitats for the FEIR. As described in the FEIR, the Project site has been previously disturbed and is a developed site with limited vegetation present. Ornamental vegetation is primarily located outside of the Facility wall and no vegetation is present within the site. No changes to the description of biological resources in the FEIR have occurred since the FEIR was certified. The Project site is maintained with no vegetation within the site, and ornamental vegetation outside the Facility wall.

The ornamental trees, shrubs, utility pole, and structures/buildings on the Project site provide potential nesting habitat for migratory birds and raptors. Habitat for ground-nesting bird species is present; the

trees and other vegetation located adjacent to the Facility could also provide nesting habitat for bird species.

3.4.2 Regulatory Setting

3.4.2.1 Federal

3.4.2.1.1 Endangered Species Act

The federal ESA protects threatened and endangered species by prohibiting federal actions that would jeopardize the continued existence of such species or result in destruction or adverse modification of any critical habitat of such species. If effects to listed species are anticipated, Section 7 of the ESA requires consultation regarding protection of such species be conducted with the USFWS and/or the National Marine Fisheries Service prior to project implementation. (16 USC 1531, 1536).

3.4.2.1.2 Migratory Bird Treaty Act

Congress passed the Migratory Bird Treaty Act (MBTA) in 1918 to prohibit the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The prohibition applies to birds included in the respective international conventions between the United States and Great Britain, the United States and Mexico, the United States and Japan, and the United States and Russia.

Migratory bird species receive federal protection under the MBTA and state protection under CEQA Guidelines Section 15380(d). In the case of bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*), additional protection is offered under the federal Bald and Golden Eagle Protection Act. All birds, except European starlings, English house sparrows, rock doves (pigeons), and non-migratory game birds such as quail, pheasant, and grouse, are protected under the MBTA. No permit is issued under the MBTA; however, a project would need to employ measures that would avoid or minimize impacts to protected migratory birds.

3.4.2.2 State

3.4.2.2.1 California Endangered Species Act

The CESA focuses on protecting all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation.

3.4.3 Impact Assessment

BIO (a). Would the Project 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 CDFW or USFWS?

No Impact. The FEIR determined there were no impacts to special status species from operational impacts of the Project. There is no ground-disturbing activity proposed as part of the Project, and the increase of the tonnage accepted per day would not directly or indirectly affect or alter habitat of any

special-status species. Therefore, the Project would not result in any new or more severe impacts than as described in the FEIR.

BIO (b). Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

No Impact. The Project site is fully developed, and sensitive habitats are not present within the existing Facility footprint. There are no riparian habitats, or other sensitive natural community identified. No impacts to riparian habitats were identified in the FEIR. There is no ground-disturbing activity proposed under the Project. Therefore, the Project would not result in any new or more severe impacts than as described in the FEIR.

BIO (c). Would the Project 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 FEIR determined that no impacts to wetlands would result from the operation of the EDCO Facility. As the Project site does not contain any wetlands, the Project would not result in any impacts to wetlands. Therefore, the Project would not result in any new or more severe impacts than as described in the FEIR.

BIO (d). Would the Project 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 Project site is not part of a habitat corridor and is located on a developed site. Accordingly, the FEIR found that no impacts to wildlife corridors would occur. The Project would result in changes only to the maximum volume of waste received inside the Facility. Therefore, the Project would not result in any new or more severe impacts than as described in the FEIR.

BIO (e). ***Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

No Impact. The FEIR determined that operation of the EDCO Facility would not conflict with any local policies or ordinances protecting biological resources, as no such policies or ordinances exist in the City. Therefore, the Project would similarly not conflict with any policies and would not result in any new or more severe impacts than as described in the FEIR.

BIO (f). ***Would the Project 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. There are no relevant Habitat Conservation Plans, Natural Community Conservation Plans, or other approved conservation plans that include the Project area. As such, the FEIR determined that operation of the EDCO Facility would not conflict with the provision of any such plans and the Project would not result in any new or more severe impacts than as described in the FEIR.

3.5 Cultural Resources

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

3.5.1 Environmental Setting

Cultural resources include the locations of human activity, occupation, or usage that contain materials, structures, or landscapes that were used, built, or modified by people. Cultural resources consist of a variety of prehistoric and historic archaeological resources including sites, objects, buildings, structures, districts, and properties of religious and cultural significance including traditional cultural properties. Historic properties, as defined in 36 CFR 800, the implementing regulations of the National Historic Preservation Act (NHPA), are cultural resources that meet the criteria to be included in or eligible for inclusion in the National Register of Historic Places (NRHP).

The Environmental Resources Element of the Signal Hill General Plan describes historical resources located in Signal Hill, which include oil development and historical structures. Oil was discovered in 1921 and provided the City with the financial resources to develop. The discovery led to speculative oil development of the area and resulted in one of the largest historical oil fields in the state. The first well, Alamitos #1 Discovery Well (Historic Landmark # 580), located at the northeast corner of Hill Street and Temple Avenue, is designated as a state historical monument (City 1986). Alamitos #1 Discovery Well is located approximately 0.14 miles south of the Project site. No designated Los Angeles County historical landmarks are located within the Project site. The Sunnyside Cemetery is located approximately 0.07 miles southeast of the Project site, and is the closest known archaeological resource.

3.5.2 Regulatory Setting

3.5.2.1 Federal

3.5.2.1.1 National Historic Preservation Act

Section 106 of the NHPA requires that every federal agency "take into account" how each of its undertakings could affect historic properties. Historic properties are districts, sites, buildings, structures, traditional cultural properties, and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the NRHP (National Park Service 2012).

3.5.2.2 State

3.5.2.3 California Register of Historical Resources: California Environmental Quality Act and California Public Resources Code

The cultural resources provisions of CEQA provide for the documentation and protection of significant prehistoric and historic-era resources. Before the approval of discretionary projects and the commencement of agency undertakings, the potential impacts of the Project on archaeological and historical resources must be considered (PRC Sections 21083.2 and 21084.1 and the CEQA Guidelines [CCR Title 14, Section 15064.5]). The significance of an archaeological or historical resource per the CEQA Guidelines is an important consideration in terms of their management. Listing on the California Register of Historical Resources, or eligibility for listing on the California Register of Historical Resources, is the primary consideration in whether or not a resource is subjected to further research and documentation. The significance of cultural resources is measured against the criteria outlined in the California Register of Historic Resources. Determining the California Register of Historical Resources eligibility of historic and prehistoric sites located within the study area is guided by the specific legal context of the site's significance as outlined in PRC Sections 21083.2 and 21084.1 and the CEQA Guidelines (CCR Title 14, Section 15064.5). In the California Register of Historical Resources cultural resources are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance. A cultural resource may be eligible for listing on the California Register of Historical Resources if it:

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

3.5.2.4 California Health and Safety Code Sections 7050.5 and 7052

In accordance with the California Health and Safety Code Sections 7050.5 and 7052, if human remains are uncovered during ground-disturbing activities, all such activities in the vicinity of the find shall be halted immediately, and the City's designated representative would be notified. EDCO's representative would immediately notify the City planner, county coroner and a qualified professional archaeologist. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (HSC Section 7050[c]).

3.5.2.4.1 California Public Resources Code Section 5097.9

The City's responsibilities for acting upon notification of a discovery of Native American human remains are identified in detail in the California Public Resources Code Section 5097.9. If remains are discovered, EDCO would contact the City or its appointed representative and the professional archaeologist shall

contact the Most Likely Descendent, as determined by the NAHC, regarding the remains. The Most Likely Descendent, in cooperation with the City, would determine the ultimate disposition of the remains.

3.5.2.5 Local

3.5.2.5.1 Signal Hill General Plan

The Environmental Resources Element (1986) of the Signal Hill General Plan addresses cultural resources in goals and policies, as outlined in **Table 3.5-1** below.

Table 3.5-1. Applicable City of Signal Hill General Plan Goals and Policies

Element	Goal	Policy	Applicability
Environmental Resources	Goal 2: Maintain and enhance the City of Signal Hill 's unique cultural, aesthetic and historic areas.	Policy 2.1: Protect and enhance the State Historical Landmark at the Alamitos Well Site # 1.	The Project area is not located within this historical landmark site and would not impact it.
		Policy 2.2: Protect and enhance architectural resources in the City consistent with their significance and importance. Develop ways of encouraging these resources to remain intact as the City grows and develops.	The Facility does not contain significant architectural resources, and continued operation would not impact architectural resources in the City of Signal Hill.

Source: City of Signal Hill 1986

3.5.3 Impact Assessment

CUL (a). Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

CUL (b). Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

CUL (c). Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

The FEIR determined for all three CEQA Checklist questions that there were no operation-related impacts generated at the Project site; mitigation was required only for construction-related impacts. The Project area is not located on any historical sites, and there is no ground-disturbing activity proposed as part of the Project; therefore, no historical or archaeological resources could be affected, nor would any human remains be disturbed. Accordingly, the Project would not result in any new or more severe impacts than as described in the FEIR.

3.6 Energy

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the Project:				
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?	☐	☐	☒	☐

3.6.1 Environmental Setting

3.6.1.1 California's Energy Supplies

Energy capacity, or electrical power, is generally measured in watts while energy use is measured in watt-hours. For example, if a light bulb has a capacity rating of 100 watts, the energy required to keep the bulb on for 1 hour would be 100 watt-hours. If ten 100-watt bulbs were on for 1 hour, the energy required would be 1,000 watt-hours or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts, which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours. The Project site is within the Southern California Edison (SCE) service area. During 2020, Southern California Edison delivered a total of approximately 103,597 GWh of electricity to its customers (California Energy Commission [CEC] 2022a).

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of the State's total energy requirements. Natural gas is measured in terms of cubic feet (cf).

Gasoline is by far the largest transportation fuel by volume used in California. Nearly all the gasoline used in California is obtained through the retail market. In 2022, approximately 13.64 billion gallons of gasoline were sold in California's retail market (CEC 2022c).

Diesel fuel is the second largest transportation fuel by volume used in California behind gasoline. In 2022, approximately 2.29 billion gallons of diesel were sold in California's retail market (CEC 2022c). According to the U.S. Department of Energy's Energy Information Administration, nearly all semi-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm, construction, and military vehicles and equipment have diesel engines.

3.6.1.2 Existing Energy Consumption

Fuels (i.e., gasoline and diesel) and electricity are consumed as part of EDCO's existing and ongoing operations.

Fuel: On a typical operating day, employee, contractor, and self-hauler vehicles (i.e., automobiles, light- and heavy-duty trucks) travel to the EDCO site to dispose of refuse. Existing operations include the use of diesel loaders for handling and loading refuse at the Facility. Processing of an additional 1,000 tpd would require an additional 2 hours of daily operation of diesel off-road equipment.

Electricity: EDCO's electricity supply is purchased from SCE.

3.6.2 Regulatory Setting

3.6.2.1 Federal

3.6.2.1.1 Corporate Average Fuel Economy Standards

Congress enacted the Corporate Average Fuel Economy standards in 1975 to reduce energy consumption and increase the fuel economy of cars and light trucks. Corporate Average Fuel Economy standards are regulated by the Department of Transportation National Highway Traffic and Safety Administration and the USEPA calculates fuel economy levels and sets related GHG standards. Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and National Highway Traffic and Safety Administration. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction of CO_2 emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of vehicles. USEPA and National Highway Traffic and Safety Administration have also adopted the Phase 2 medium- and heavy-duty vehicles standards, which cover certain trailers for model years 2018 through 2027 and semi-trucks, large pickup trucks, vans, and all buses and work trucks with model years 2021 through 2027. These standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles (DOT 2014, USEPA 2022a).

3.6.2.1.2 Energy Policy Act of 2005

The Energy Policy Act of 2005 addresses energy production in the U.S, including energy efficiency; renewable energy; oil and gas; coal; tribal energy, nuclear matters and security; vehicles and motor fuels; hydrogen; electricity; energy tax incentives; hydropower and geothermal energy; and climate change technology. A provision of the Energy Policy Act is that it provides loan guarantees for entities that develop or use innovative technologies to avoid production of greenhouse gases. It also increases the amount of biofuel that must be mixed with gasoline sold in the U.S. (USEPA 2022b).

3.6.2.2 State

3.6.2.2.1 Senate Bill 1389

SB 1389 (PRC Sections 25300–25323) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report to assess major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provide policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (PRC Section 25301[a]). CEC's 2021 Integrated Energy Policy Report provides findings and recommendations for energy issues facing the state,

including energy efficiency and reliability, decarbonizing buildings and California's natural has system, forecasting California's energy demand, and quantifying the benefits of clean transportation programs, such as California's transition to zero-emission vehicles. The 2021 report also provides trend updates for California's sources of crude oil and nuclear plants (CEC 2021).

3.6.2.2.2 Senate Bill 350, Clean Energy and Pollution Reduction Act

SB 350 established clean energy, clean air, and GHG reduction goals, which included reducing GHGs to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. The CEC works with other state agencies, including the California Public Utilities Commission, CARB, and the California Independent System Operator to implement this bill. SB 350 increases the state's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030, which will increase the use of Renewables Portfolio Standard eligible resources including solar, wind, biomass, geothermal, and others. In addition, California is required to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To meet these goals and reduce GHG emissions, the CEC will require large utilities to develop and submit integrated resource plans, which detail how utilities will meet their customers' resource needs, reduce GHG emissions, and increase clean energy resource use (CEC 2022b).

3.6.2.2.3 CARB Heavy-Duty On-Road and Off-Road Vehicle Regulations

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to DPM emissions (Title13 California Code of Regulations Section2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

In addition to limiting exhaust from idling trucks, CARB also promulgated emissions standards for off-road diesel construction equipment greater than 25 horsepower (hp) such as loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007, encourages the retirement, replacement, or repower of older engines with newer emissions-controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines.

3.6.2.2.4 Assembly Bill 1575

AB 1575 was adopted in 1975 by the California State Legislature and amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy resources caused by a project. Since the passage of AB 1575, the California Natural Resources Agency finalized updates to the CEQA Guidelines in December 2018. New CEQA Guidelines Section

15126.2(b) treats “wasteful, inefficient, or unnecessary” energy consumption as a significant environmental impact.

3.6.2.2.5 Assembly Bill 1493

AB 1493 was passed in 2002 in response to the transportation sector accounting for a majority of California’s GHG emissions. It requires CARB to adopt regulations and set GHG emission standards for new passenger vehicles, light-duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase 1 of the legislation established standards for model years 2009 through 2016 and Phase 2 established standards for model years 2017 through 2025 (CARB 2022c).

3.6.2.3 Local

3.6.2.3.1 Signal Hill Sustainability Programs

The City implements a variety of programs and frameworks meant to promote sustainable practices including those related to reduced fossil fuel consumption and increased use of renewable energy sources. The City supports Energy Upgrade California, which is a statewide initiative which encourages people to integrate energy management practices into their daily lives. Signal Hill urges residents and small businesses to become more conscious about energy use. Specific sustainability policies promoted by the City includes the following: Municipal Green Building, Electrical Vehicle Charging Station, and the Sustainable Purchasing policies (City 2022a). The goals and policies outlined within the City’s sustainability programs are generalized and not specific to the Project. However, the Project would continue to incorporate energy saving infrastructure and operational procedures as feasible, to reduce the existing and future energy consumption associated with CUP 09-01, as applicable and required by City regulations.

3.6.3 Impact Assessment

ENG (a). Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less than Significant. Increasing the permitted throughput by 1,000 tpd would not require a physical expansion of the Facility, or significant additional on-site energy consumption or water use compared to conditions prior to issuance of the emergency waivers (i.e., hours of operation and electricity and water consumption is generally constant regardless of material throughput up to the maximum design capacity of 6336 tpd). For this reason, the Project would not result in a potential impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant. The FEIR determined there would be less than significant impacts to utilities, and therefore were not addressed fully in the FEIR. Energy impacts were not addressed as a standalone resource category, given the FEIR was published in 2009. This addendum is consistent with the analysis and impacts would be less than significant. The Project would not result in any new or more severe impacts than as described in the FEIR. No new significant impacts were identified.

ENG (b). Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant. The FEIR did not analyze utilities and services systems, and in addition to changes in regulation, the FEIR result did not complete an analysis in the energy resource category. The FEIR implemented a number of environmental control systems as part of the original Project approval; energy efficient designs including natural day lighting and working with Southern California Edison "to obtain grants for solar power systems, variable speed motors and other energy efficiency measures (City of Signal Hill 2009). The same utility company responded to the NOP advising that the electrical loads of the project were within the parameters of the projected load growth anticipated in the area (City of Signal Hill 2009). Because there is no anticipated increase in energy use with the Project, and no construction or ground-breaking activity, there are no applicable state or local plans for renewable energy or energy efficiency that are in conflict with the Project. The FEIR determined there were less than significant impacts to utilities, and therefore were not addressed fully in the EIR. This addendum is consistent in this analysis. The Project would not result in any new or more severe impacts than as described in the FEIR.

3.7 Geology and Soils

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the Project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			☐	☒
ii) Strong seismic ground shaking?				☒
iii) Seismic-related ground failure, including liquefaction?			☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the Project:				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

3.7.1 Environmental Setting

3.7.1.1 Geology and Soils

The City of Signal Hill is located in the Peninsular Ranges Geomorphic Province within an area known as the Los Angeles Coastal Plain. Signal Hill is a surface expression of the northwesterly Newport-Inglewood structural fault zone and is underlain by thousands of feet of marine and nonmarine sediments that rest above metamorphic basement rock. The current surface expression of the area consists of Holocene- and Pleistocene-age sediments. Generally, the sediments present in Signal Hill are composed of weathered alluvium and are classified as silts and sands (City 1986). The dominant geologic unit is comprised of old paralic (interfingered) deposits consisting primarily of silt and sand with scattered gravel and fossiliferous lenses, capped locally with a reddish-brown weathered (soil) zone of clayey silt to clayey sand. This unit is described as potentially corrosive to concrete, having limited expansion potential, and moderate expansion potential in clayey sections (City 2016). The remainder of Signal Hill consists of young alluvial floodplain deposits composed mostly of soft clay, silt and loose to moderately dense sand and silty sand as well as coarser-grained young alluvial fan and valley deposits composed of clay, sand, gravel and cobbles. These units have localized areas of moderate to high expansion potential and are considered to have a higher potential for liquefaction. Areas mapped as these units are those areas which the CDOC mapped as liquefaction zones. The EDCO Facility is situated within the paralic deposits (City 2016). The geologic units designated in Signal Hill are shown in **Figure 3.7.1** and described in **Table 3.7-1** below.

Table 3.7-1. Geologic Units in Signal Hill

Unit	Description
Qop	Old paralic deposits (late to middle Pleistocene; include the Lakewood Formation, terrace deposits, and Palos Verdes sand) – In the Signal Hill area, these are composed primarily of silt and sand with scattered gravel and fossiliferous lenses, capped locally with a reddish-brown weathered (soil) zone of clayey silt to clayey sand. These interfingered strandline, beach, estuarine, and colluvial deposits are mostly poorly

Unit	Description
	sorted, moderately permeable, and medium dense to dense. The silt and sand sections, where exposed in slope faces, are susceptible to erosion and surficial slumping; the clayey sections may have a moderate expansion potential. May be corrosive to concrete.
Qya	Young alluvial floodplain deposits (Holocene and Late Pleistocene) – Composed mostly of soft clay, silt and loose to moderately dense sand and silty sand. These deposits are mostly poorly consolidated, poorly sorted, and permeable, and therefore potentially susceptible to liquefaction and differential settlement. Locally, these deposits may have a moderate to high expansion potential.
Qyfa	Young alluvial fan and valley deposits (Holocene and Late Pleistocene) – Composed of clay, sand, gravel and cobbles. These deposits are mostly poorly consolidated and poorly sorted, and are therefore compressible, potentially susceptible to collapse, liquefaction, and seismically-induced differential settlement. Locally, these deposits may have a moderate to high expansion potential.
Not mapped	Artificial fill (compacted and uncompacted) – deposits of various thicknesses are known to occur locally in the Signal Hill area but are not mapped in the General Plan. These deposits are typically associated with petroleum exploration and drilling activities, grading, and construction. Fills impacted with petroleum hydrocarbons and heavy metals may be encountered in areas that were previously part of an oilfield. These deposits are mostly poorly consolidated, poorly sorted, potentially compressible, and may have a moderate to high expansion potential.

Source: City 2016

3.7.1.2 Faulting and Seismicity

The City of Signal Hill is located in a seismically active region, and major regional faults create the risk of substantial earth shaking and potential ground rupture in the area. Within Los Angeles County, there are over 50 active and potentially active fault segments, an undetermined number of buried faults, and at least four blind-thrust faults capable of producing damaging earthquakes. Earthquakes and associated ground shaking present a multitude of potentially dangerous consequences that can include ground rupture, ground failure, liquefaction, and landslides.

The California Geological Survey defines an active fault as a fault showing evidence for activity within the last 11,000 years. The Newport-Inglewood Fault System is a seismically active system that cuts diagonally across Signal Hill. This fault is the most significant seismic feature in the area and contains five faults which are within or in the immediate vicinity of Signal Hill, four of which are active or potentially active (Cherry Hill, Pickler, Northeast Flank, and Reservoir Hill faults) (City 2016), as shown in **Figure 3.7.2**. The Newport-Inglewood Fault System is designated as an Alquist-Priolo fault zone (City 2016). The Facility is within an Alquist-Priolo fault zone (CDOC 2021).

The CDOC maps earthquake hazard zones, which are defined areas subject to the following three types of geologic ground failures: (1) fault rupture, where the surface of the earth breaks along a fault; (2) liquefaction, in which the soil temporarily turns to quicksand and cannot support structures; and, (3) earthquake-induced landslides (CDOC 2021). Limited areas within the City of Signal Hill pose potential seismically induced landslide and liquefaction risks.

3.7.1.3 Landslides

Unstable hillslopes are areas susceptible to landslides. Landslides consist of the downslope movement of soil and rock under the influence of gravity. The geologic and topographic features of the landscape are the primary determinants of the shear strength of the hillslope materials (i.e., resistance to landslides) and hillslope shear stress (i.e., propensity for landslides). Landslides occur when the shear stress exceeds

the shear strength of the materials forming the slope (Highland and Bobrowsky 2008). The best indicator of high landslide potential is evidence of previous landsliding (Highland and Bobrowsky 2008). Landslides can be classified as active or dormant, based on how recently they have moved. Active landslides typically display cracks or sharp, bare scarps. Vegetation is usually sparser on active landslides than on adjacent stable ground, and if trees are present, they are usually leaning, indicating that ground movement has occurred since they became established. Dormant landslide features have typically been modified by weathering, erosion, and vegetative growth and succession. Active landslides are generally more unstable than dormant landslides and may require mitigation measures to avoid mobilization. Excavation, the use of heavy equipment, soil saturation, or the removal of root support can mobilize active landslides. Although dormant landslides are less likely to be mobilized by human activities, portions of dormant landslides (e.g., their steep headwalls and margins) are often unstable.

As shown in **Figure 3.7.3**, areas that are susceptible to landslides are in areas of higher elevation within Signal Hill. The City was most recently impacted in 1998 when a portion of steep, unstable natural slope below Panorama Drive eroded due to heavy El Niño rains (City 2016). As stated in the City General Plan Safety Element (2016), no significant landslide events have occurred in the City of Signal Hill since the adoption of the 2012 Mitigation Plan. The Project site is not located within a Landslide Zone (City 2016).

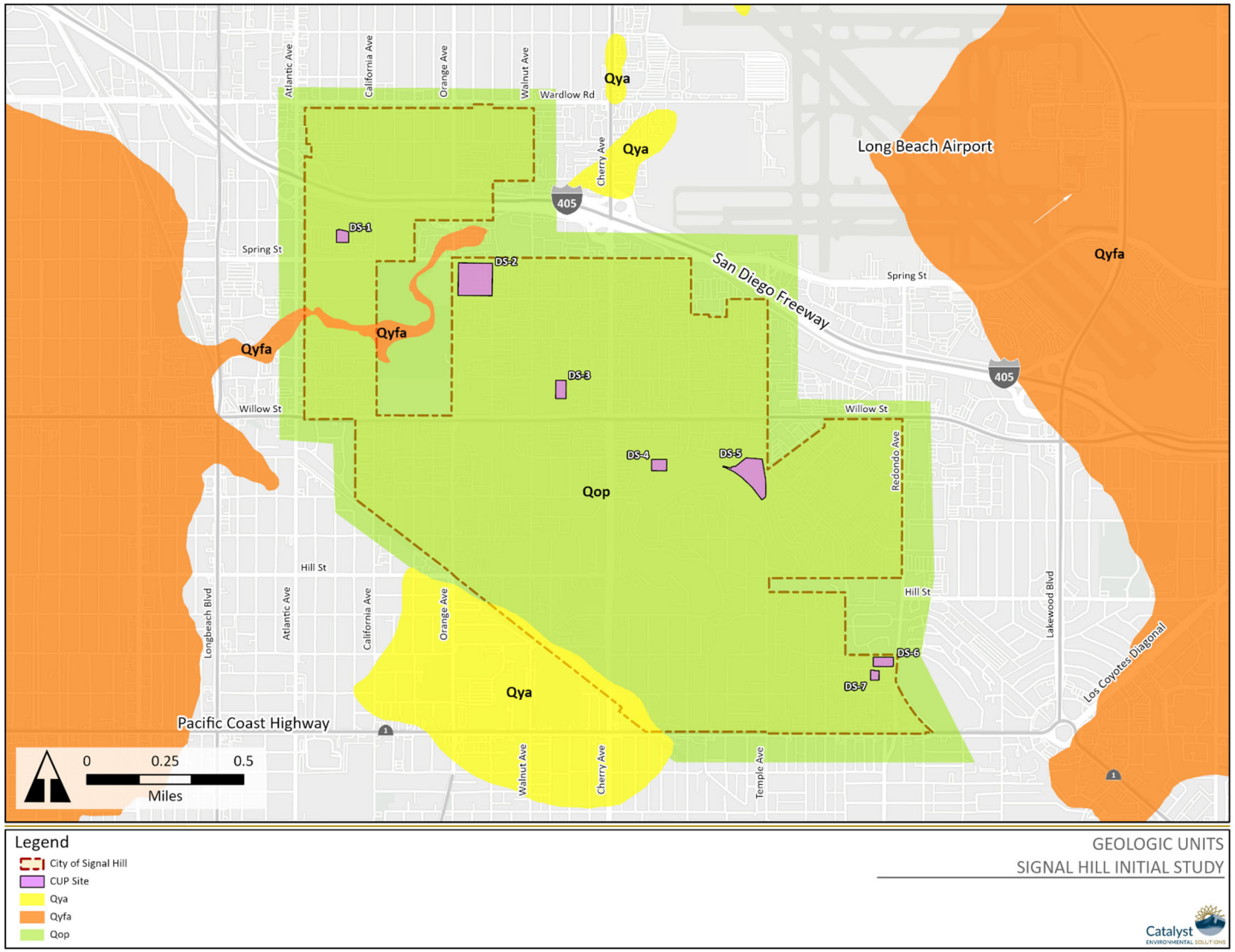


Figure 3.7-1. Geologic Units Designated in Signal Hill

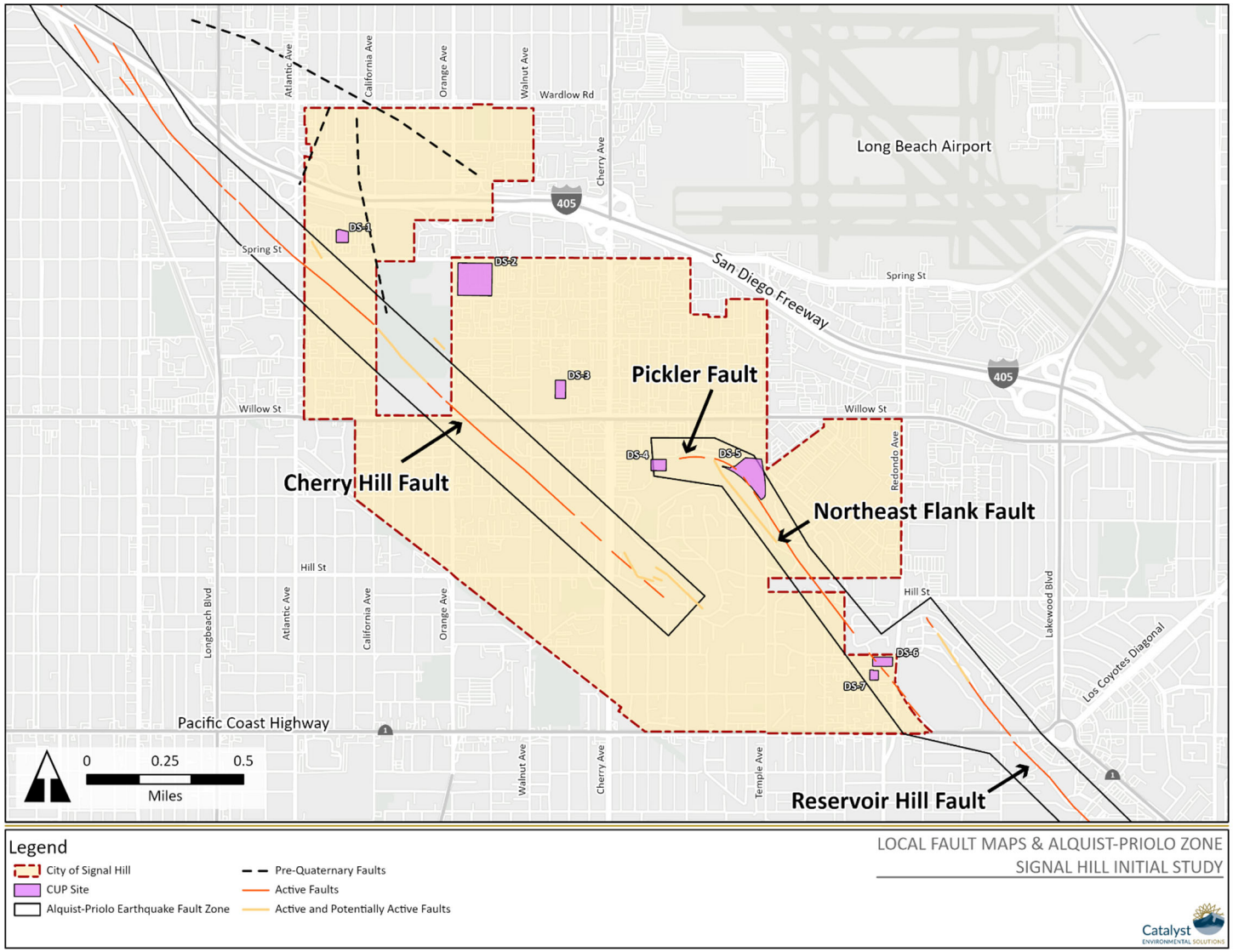


Figure 3.7-2. Designated Fault Zones in Signal Hill

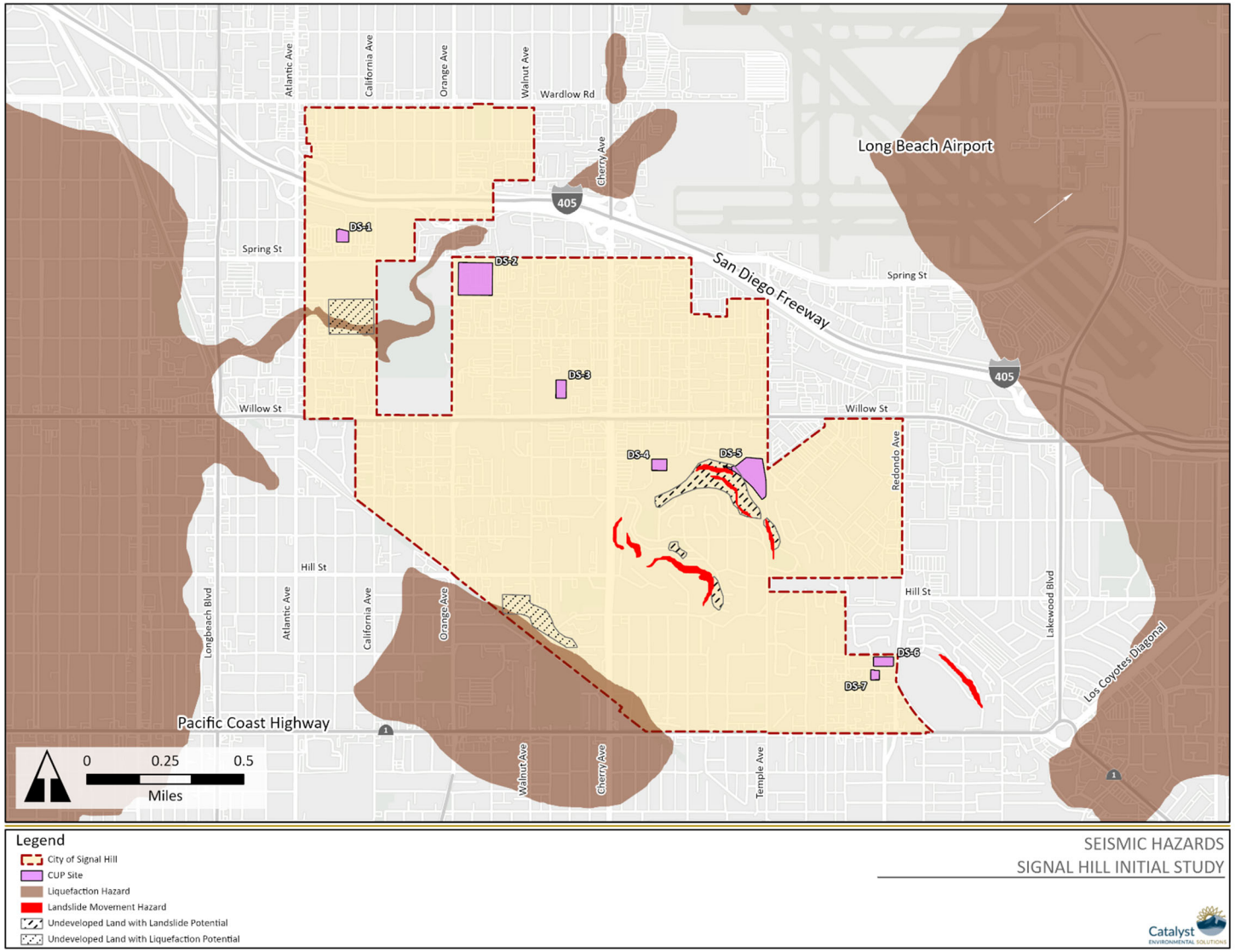


Figure 3.7-3. Liquefaction and Landslide Movement Hazards in Signal Hill

3.7.1.4 Subsidence

Subsidence is the sinking or gradual lowering of the earth's surface. Natural geologic causes of subsidence include basin-downward fault movement, sediment compaction, and relaxation of deep earth stresses. Man-made causes include groundwater pumping, mining, oil and gas production, river channelization, and surface loading (City 2016).

The Port of Long Beach area experienced significant subsidence historically, primarily due to oil and gas extraction in the Wilmington Oilfield (City 2016). To address subsidence, the City of Long Beach successfully tested waterflooding and repressuring operations, which halted the subsidence and mostly stabilized surface elevations (Baghdikian et al. 2010). To prevent further subsidence, water was injected into areas where oil was removed. The City of Long Beach instituted a water injection volume equal to 105% of the total volume of produced fluids (oil, gas, and water) to prevent further reservoir compaction and subsidence (Baghdikian et al. 2010). The maximum elevation loss was 29 feet, which created a land surface "subsidence bowl", the extent of which affected the Signal Hill area by up to 2 feet as shown in **Figure 3.7-4** (Baghdikian et al. 2010, City of Long Beach 2022).

3.7.1.5 Paleontological Resources

The majority of the City of Signal Hill is underlain by old paralic deposits of late to middle Pleistocene age which have the potential to include paleontological resources as marine mollusks have been observed in these deposits in Signal Hill (PCR 2017). Accordingly, excavations into these deposits have the potential to encounter paleontological resources.

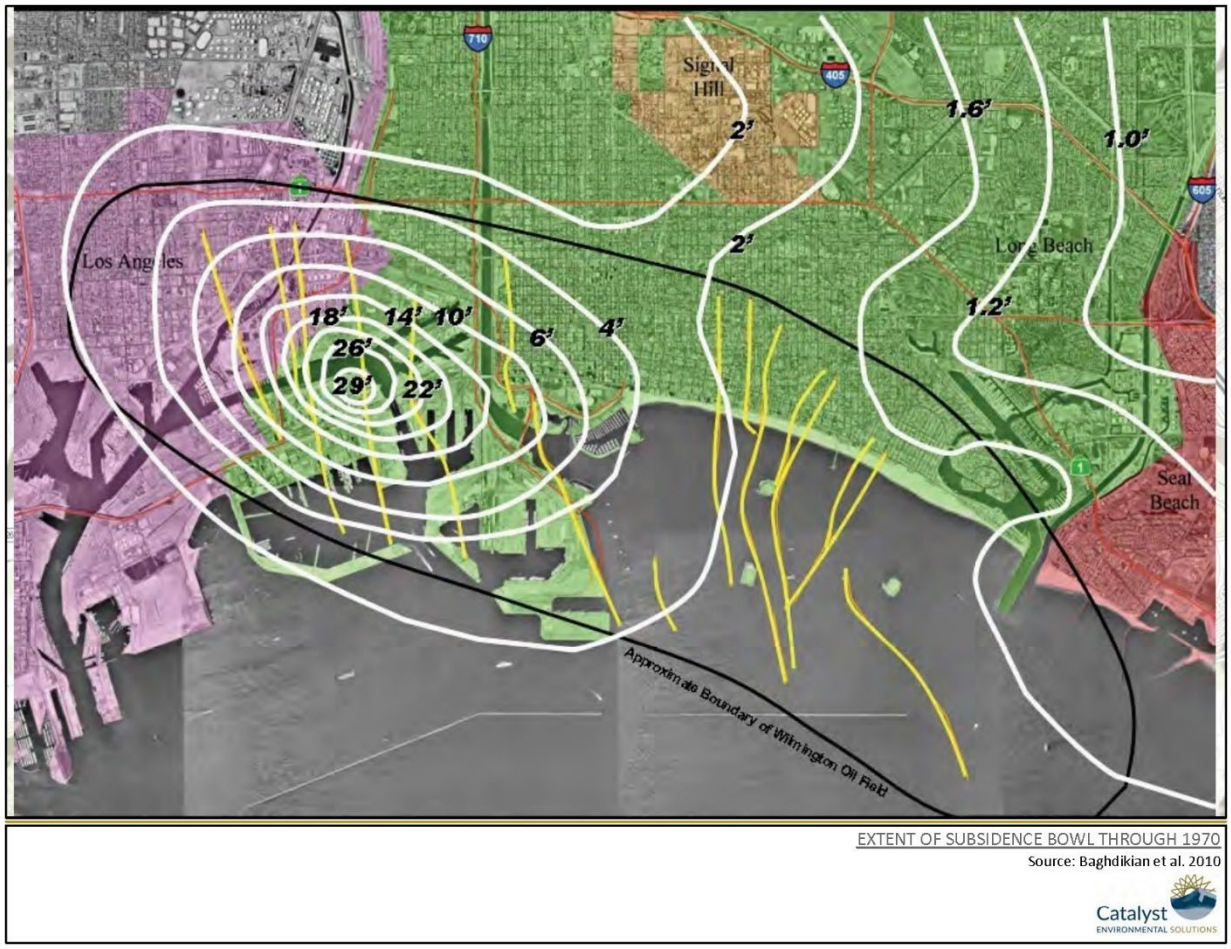


Figure 3.7-4. Extent of Subsidence Bowl through 1970

3.7.2 Regulatory Setting

3.7.2.1 State

3.7.2.1.1 Alquist-Priolo Earthquake Fault Zoning Act, California Public Resources Code Sections 2621– 2630

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (PRC Sections 2621–2630) was passed in 1972 to reduce the hazard of surface faulting on structures designed for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as Earthquake Fault Zones around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed

buildings would not be constructed across active faults. Because the Project would not involve the construction of any buildings, Project activities are not subject to permitting approvals based on this act.

3.7.2.1.2 PRC Sections 5097.5 and 30244

PRC, Chapter 1.7, Sections 5097.5 and 30244, include additional state level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts to paleontological resources resulting from development on state lands, define the removal of paleontological "sites" or "features" from state lands as a misdemeanor, and prohibit the removal of any paleontological "site" or "feature" from state land without permission of the jurisdictional agency. These protections apply only to State of California land; therefore, this is not applicable to the Project which would occur on private land.

3.7.2.1.3 Seismic Hazards Mapping Act

The only hazards addressed by the Alquist-Priolo Fault Zoning Act are those related to surface fault rupture, not other earthquake hazards. As such, the state passed the Seismic Hazards Mapping Act in 1990 to address non-surface rupture seismic hazards, which include liquefaction, landslides, and strong seismic ground shaking. Under the Seismic Hazards Mapping Act, the State Geologist is required to identify and map the locations of these secondary seismic hazards (CDOC 2019).

3.7.2.1.4 Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act of 2002 codifies the generally accepted practice of limited vertebrate fossil collection and limited collection of other rare and scientifically significant fossils by qualified researchers. Researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they would remain accessible to the public and other researchers (NPS 2020).

3.7.2.2 Local

3.7.2.3 Signal Hill General Plan

The Safety Element (2016) of the Signal Hill General Plan address geology in goals and policies, as outlined in **Table 3.7-2.**

Table 3.7-2. Applicable City of Signal Hill General Plan Goals and Policies

Element	Goal	Policy	Applicability
Safety	Goal 1: Prevention: Strive to prevent man-made disasters and minimize the potential for natural disasters to impact the community.	Policy 1.d: Maintain, revise, and enforce appropriate standards and codes to minimize seismic and geologic risks.	The Project would continue to be subject to all previous regulations and requirements (e.g., Conditions of CUP Approval) and any future changes to the City of Signal

Element	Goal	Policy	Applicability
			Hill Municipal Code regarding seismic designs and controls.
		Policy 1.k: Regulate development in Alquist-Priolo Earthquake Fault Zones consistent with levels of acceptable risk. Require the submission of geologic and seismic reports, as well as soils engineering reports, in relation to applications for land development permits whenever seismic or geologic problems are suspected.	No physical improvements are proposed. The site is already developed and Project operations would be consistent with applicable regulations.

Source: City 2016

3.7.3 Impact Assessment

GEO (a) Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

No Impact. The Project is located within an Alquist-Priolo fault zone as seen above in figure 3.7-2, but is not within a liquefaction zone or within a landslide zone. The FEIR determined that compliance with all Uniform Building Code and other Signal Hill geotechnical requirements would reduce geology and soils impacts to less than significant. No mitigation or compliance is listed in the FEIR as a long-term action. As the Project would not require any ground disturbance at the Cherry Hill fault, and no new impacts are identified, the Project would not result in any impacts and no new or more severe impacts than described in the FEIR would result.

GEO (b) Would the Project result in substantial soil erosion or the loss of topsoil?

No Impact. The FEIR determined that compliance with all Uniform Building Code and other Signal Hill geotechnical requirements would reduce geology and soils impacts to less than significant. As the Project would not require any ground disturbance, the Project would not result in any impacts and no new or more severe impacts than described in the FEIR would result.

GEO (c) Would the Project 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?

No Impact. The Project site is not within a Liquefaction zone. The FEIR determined that compliance with all Uniform Building Code and other Signal Hill geotechnical requirements would reduce geology and soils impacts to less than significant. As the Project would not require any ground disturbance, the Project would not result in any impacts and no new or more severe impacts than described in the FEIR would result.

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

No Impact. The FEIR determined that compliance with all Uniform Building Code and other Signal Hill geotechnical requirements would reduce geology and soils impacts to less than significant. As the Project would not require any ground disturbance, the Project would not result in any impacts and no new or more severe impacts than described in the FEIR would result.

GEO (e) Would the Project 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 FEIR determined that compliance with all Uniform Building Code and other Signal Hill geotechnical requirements would reduce geology and soils impacts to less than significant. As the Project would not require the addition of any septic tanks or alternative wastewater disposal systems, the Project would not result in any impacts and no new or more severe projects than described in the FEIR would result.

GEO (f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. There are no ground-disturbing or construction activities proposed as part of the Project. The FEIR determined that compliance with all Uniform Building Code and other Signal Hill geotechnical requirements would reduce geology and soils impacts to less than significant. Paleontological resources were not evaluated as a standalone category in the FEIR due to changes in CEQA regulations since its publication in 2009. However the paleontological setting of the site relative to the historical resources found that Alluvium and/or colluvium are near surface soils that have been deposited or have accumulated due to local fluvial processes or from erosion and down slope movement of soils from adjacent highlands. Due to the young age of these sediments (< 10,000 years), not enough time has passed to fossilize any remains that might be present. Therefore, these deposits do not exhibit a high level of sensitivity to paleontological deposits. As the Project would not require any ground disturbance, the Project would not result in any impacts and no new or more severe impacts than described in the FEIR would result.

3.8 Greenhouse Gas Emissions

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would 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?	☐	☐	☒	☐

3.8.1 Environmental Setting

3.8.1.1 GHG Global Warming Potential

GHGs are a set of compounds whose presence in the atmosphere is associated with the differential absorption of incoming solar radiation and outgoing radiation from the surface of the earth. GHGs, such as carbon dioxide, methane, nitrous oxide, and certain synthetic chemicals, trap some of the Earth's outgoing energy, thus retaining heat in the atmosphere. This heat trapping causes changes in the radiative balance of the Earth - the balance between energy received from the sun and emitted from Earth - that alter climate and weather patterns at global and regional scales (Intergovernmental Panel on Climate Change [IPCC] 2021). More specifically, GHGs strongly absorb the long-wave radiation emitted by the earth and, hence, are capable of warming the atmosphere. Regulated GHGs in California are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and nitrogen trifluoride (NF_3). Other GHGs, such as water vapor, are not regulated.

In order to attempt to quantify the impact of specific GHGs, each gas is assigned a global warming potential (GWP). Individual GHG compounds have varying GWPs and atmospheric lifetimes. The GWP of a GHG is a measure of how much a given mass of a GHG is estimated to contribute to global warming, relative to CO_2, which is assigned a GWP of 1.0.

The GWP is used to determine the carbon dioxide equivalent (CO_2e) mass of each GHG. The calculation of CO_2e is the accepted methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO_2. For example, CH_4's GWP of 25 indicates that the global warming effect of CH_4 is 25 times greater than that of CO_2 on a unit mass basis. CO_2e is the mass emissions of an individual GHG multiplied by its GWP. The physical properties and sources of GHGs are described in **Table 3.8-1.**

Table 3.8-1. Global Warming Potential, Properties, and Sources for Selected Greenhouse Gases

Pollutant	GWP	Description and Physical Properties	Sources
CO_2	1	CO_2 is an odorless, colorless, naturally occurring GHG.	CO_2 is emitted from natural and anthropogenic (human) sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
CH_4	25	CH_4 is an organic, colorless, naturally occurring, flammable gas. Its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years) compared to other GHGs.	CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropogenic sources include fossil-fuel and biomass combustion, as well as landfilling and wastewater treatment.
N_2O	298	N_2O, commonly referred to as "laughing gas," is a colorless, nonflammable GHG. It is a powerful oxidizer and breaks down readily in the atmosphere.	Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, e.g., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars.
HFCs	92 - 14,900	HFCs are synthetic man-made chemicals that form one of the GHGs with the highest GWP	HFCs are man-made for applications such as automobile air conditioners and refrigerants.
PFCs	6,288 - 17,700	PFCs are colorless, non-flammable, dense gases that have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years.	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
SF_6	22,800	SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas.	SF_6 is used for insulation in electric power transmission and distribution equipment,

Pollutant	GWP	Description and Physical Properties	Sources
			in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
NF_3	17,200	NF_3 is an inorganic, colorless, odorless, nonflammable gas.	NF_3 is used primarily in the plasma etching of silicon wafers

Source: CARB 2023d

There is growing concern about GHG emissions and their adverse impacts on the world's climate and environment. These concerns relate to the change in the average climate of the earth that may be measured by changes in wind patterns, storms, precipitation, and temperature.

Throughout history, climate has been changing due to forces unrelated to human activity, including solar energy input variation, volcanic activity, and changing concentrations of key atmospheric constituents such as CH_4 and CO_2. These climate changes resulted in ice ages and warm interglacial periods, accompanied by large differences in snow and ice cover and associated changes in ecological systems.

Large-scale combustion of fossil fuels (i.e., coal, oil, and natural gas) by humans beginning in the 19th century resulted in significant increases in emissions of CO_2 and emission of other compounds with high GWP. Multiple lines of evidence confirm that human activities are the primary cause of global warming of the past 50 years. Natural factors, such as variations in the sun's output, volcanic activity, the Earth's orbit, the carbon cycle, and others, also affect Earth's radiative balance. However, beginning in the late 1700s, the net global effect of human activities has been a continual increase in GHG concentrations (IPCC 2021).

3.8.1.2 GHG Emissions Inventory

Emissions inventories identify and quantify the primary human-generated sources and sinks of GHGs. This section summarizes information on global, national, and state GHG emissions inventories. CARB is responsible for developing the California GHG Emission Inventory. The GHG inventory estimates the volume of GHGs emitted to and removed from the atmosphere by human activities within California and supports the AB 32 Climate Change Program. CARB's current GHG emission inventory covers the years 2000 through 2022, and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, and agricultural land area). The Project emissions inventory is included in the development of the California GHG Emission Inventory.

- **Global Net Anthropogenic GHG Emissions.** Worldwide emissions of GHGs in 2019 totaled 59 billion ± 6.6 billion $MTCO_2e$ (IPCC 2022). Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change (UNFCCC).
- **United States Emissions.** In 2019, the United States emitted approximately 6.5 billion $MTCO_2e$. Of the six major sectors - electric power industry, transportation, industry, agriculture, commercial, and residential - the electric power industry and transportation sectors combined account for approximately 55 percent of the GHG emissions; the majority of the electric power industry and all of the transportation emissions are generated from direct fossil fuel combustion (UNFCCC 2023).
- **State of California Emissions.** According to CARB emission inventory estimates, California emitted approximately 369.2 million metric tons (MMT) of CO_2e emissions in 2020 (CARB 2022f). GHG emissions from the transportation and electricity sectors are approximately 36.8 percent and 16.1

percent of California's emission inventory, respectively. The industrial sector contributes approximately 19.9 percent. The remaining sources of GHG emissions are high GWP gases at 5.8 percent, residential and commercial activities at 10.5 percent, agriculture at 8.6 percent, and recycling and waste at 2.4 percent.

3.8.1.3 Global Climate Change

"Global climate change" refers to change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms, lasting for decades or longer. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred by some scientists and policy makers to "global warming" because it helps convey the fact that in addition to rising temperatures, other changes in global climate may occur. Climate change may result from the following influences:

The likely range of total human-caused global surface temperature increase from 1850–1900 to 2010–2019 is 33.4°F to 34.3°F, with a best estimate of 33.9°F (IPCC 2021). GHGs were the main driver of tropospheric warming since 1979 and according to the IPCC, it is extremely likely that human-caused stratospheric ozone depletion was the main driver of cooling of the lower stratosphere between 1979 and the mid-1990s (IPCC 2021). Climate change modeling shows that further warming would occur, which could induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns or more energetic aspects of extreme weather (e.g., droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones). Specific effects from climate change in California may include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in coastal areas and in the Sacramento-San Joaquin River Delta. According to the 2006 California Climate Action Team Report, several climate change effects can be expected in California over the course of the next century (CalEPA 2006). These are based on trends established by the IPCC and downscaled for California and are summarized below.

- A diminishing Sierra snowpack declining by 70 to 90 percent, threatening the state's water supply.
- A rise in sea levels, resulting in the displacement of coastal development. During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Sea level rises of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten levees and inland water systems, and disrupt wetlands and natural habitats. (Note: This condition would not affect the Project area directly, as the Project area has an elevation of greater than 75 feet above mean sea level.)
- An increase in temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- Increased risk of large wildfires if rain increases as temperatures rise. Wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant fuel available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent

more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 to 35 percent increase in the number of days that ozone pollution levels are exceeded in most urban areas.
- Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.
- Increased electricity demand, particularly in the hot summer months.
- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

3.8.2 Regulatory Setting

3.8.2.1 State

3.8.2.1.1 Executive Order S-3-05

On June 1, 2005, Executive Order S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. It calls for the Secretary of CalEPA to be responsible for coordination of State agencies and progress reporting.

3.8.2.1.2 Executive Order B-30-15

In April 2015, Governor Edmund Brown issued an Executive Order establishing a statewide GHG reduction goal of 40 percent below 1990 levels by 2030. The emission reduction target acts as an interim goal between the AB 32 goal (i.e., achieve 1990 emission levels by 2020) and Governor Brown's Executive Order S-03-05 goal of reducing statewide emissions 80 percent below 1990 levels by 2050. In addition, the Executive Order aligns California's 2030 GHG reduction goal with the European Union's reduction target (i.e., 40 percent below 1990 levels by 2030) that was adopted in October 2014.

3.8.2.1.3 Assembly Bill 32 (AB 32)

In September 2006, the California Global Warming Solutions Act of 2006, also known as AB 32, was signed into law. AB 32 focuses on reducing GHG emissions in California and requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to Statewide levels in 1990 by 2020. CARB initially determined that the total Statewide aggregated GHG 1990 emissions level and 2020 emissions limit was 427 MMT of CO_2e. The 2020 target reduction was estimated to be 174 MMT of CO_2e.

To achieve the goal, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved.

3.8.2.1.4 Senate Bill 32 (SB 32)

SB 32 updated AB 32 to include an emissions reduction goal for the year 2030. Specifically, SB 32 requires the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

3.8.2.1.5 Senate Bill 375 (SB 375)

Acknowledging the relationship between land use planning and transportation sector GHG emissions, SB 375 was passed by the State Assembly on August 25, 2008, and signed by the Governor on September 30, 2008. This legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions would be achieved by, for example, locating employment opportunities close to transit.

Under SB 375, each Metropolitan Planning Organization would be required to adopt a Sustainable Community Strategy to encourage compact development that reduce passenger VMT and trips so that the region will meet a target, created by CARB, for reducing GHG emissions. If the Sustainable Community Strategy is unable to achieve the regional GHG emissions reduction targets, then the Metropolitan Planning Organization is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target could be achieved through alternative development patterns, infrastructure, and/or transportation measures.

3.8.2.1.6 Assembly Bill 341 (AB 341)

The Commercial Recycling Requirements mandate that businesses (including public entities) that generate 4 cubic yards or more of commercial solid waste per week and multi-family residential with five units or more arrange for recycling services. Businesses can take one or any combination of the following in order to reuse, recycle, compost, or otherwise divert solid waste from disposal: self-haul, arrange for collection of source-separated recyclables, or subscribe to a recycling service.

3.8.2.1.7 Assembly Bill 1279 (AB 1279)

AB 1279 was passed on September 16, 2022 and declares the State would achieve net zero GHG emissions as soon as possible, but no later than 2045. In addition, achieve and maintain net negative GHG emissions and ensure that statewide anthropogenic GHG emissions are reduced to at least 85% below the 1990 levels by 2045. The bill would require updates to the scoping plan (once every five years) to implement various policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies.

3.8.2.1.8 Assembly Bill 1826 (AB 1826)

This measure requires businesses that generate 8 cubic yards or more of organic waste to start recycling it by April 2016, and also requires that local jurisdictions implement an organic waste recycling program to receive organic waste from businesses and multi-family developments. This measure includes a scaled approach that increases the organic waste recycling requirements for businesses in 2017, 2019, and 2020. This bill is intended to achieve the GHG reduction goals of AB 32.

3.8.2.1.9 Southern California Association of Governments

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy on September 3 ,2020. The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy reaffirms the land use policies that were incorporated into the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy. The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy describes how the region can attain the GHG emission-reduction targets set by CARB by achieving a 19 percent reduction by 2035 compared to the 2005 level on a per capita basis. Compliance with and implementation of 2020 Regional Transportation Plan/Sustainable Communities Strategy policies and strategies would have co-benefits of reducing per capita criteria air pollutant emissions associated with reduced per capita VMT.

3.8.2.1.10 Climate Change Scoping Plan

In 2008, CARB approved the original *Climate Change Scoping Plan* as required by AB 32. Subsequently, CARB approved updates to the *Climate Change Scoping Plan* in 2014 (First Update) and 2017 (2017 Update), with the *2017 Update* considering SB 32 (adopted in 2016) in addition to AB 32. The original *Climate Change Scoping Plan* proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health. The original *Climate Change Scoping Plan* identified a range of GHG reduction actions that included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

The original *Climate Change Scoping Plan* called for a "coordinated set of solutions" to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to use energy more efficiently. Utility energy providers were required to include more renewable energy sources through implementation of the Renewables Portfolio Standard. Additionally, the original Climate Change Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicated that substantial savings of electricity and natural gas would be accomplished through "improving energy efficiency by 25 percent."

On November 16, 2022, CARB adopted California's *2022 Scoping Plan for Achieving Carbon Neutrality* (CARB 2022d). The *2022 Scoping Plan* builds upon the framework established by the original *Climate Change Scoping Plan* and the First Update while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health. The *2022 Scoping Plan Update* includes policies to require direct GHG emissions reductions at some of the state's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the cap-and-trade program, which constrains and reduces emissions at covered sources.

3.8.2.1.11 California Green Building Standards (CALGreen Code)

The California Green Building Standards Code (CCR Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2017. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The 2019 CALGreen code updates were published July 1, 2019, with an effective date of January 1, 2020.

The California Energy Code (CCR Title 24, Section 6) was created as part of the California Building Standards Code (CCR Title 24) by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California's energy consumption. These standards include provisions applicable to all buildings, residential and nonresidential, which describe requirements for documentation and certificates that the building meets the standards. Compliance with Title 24 is enforced through the building permit process.

3.8.2.1.12 CEQA Guidelines Amendments

SB 97 required the Governor's Office of Planning and Research to develop CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." The CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. Noteworthy revisions to the CEQA Guidelines include the following:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of Project features that may increase or decrease GHG emissions as compared to the existing setting;
- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the Project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

3.8.3 Impact Assessment

3.8.3.1 GHG Significance Thresholds

Based on CEQA Guidelines Section 15064.4 and 15064.7(c), as well as Appendix G, a project would result in significant GHG emissions impacts on the environment if it would:

a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

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

The SCAQMD has not adopted GHG thresholds of significance for CEQA. Per CEQA Guidelines Section 15064(h)(3), a Project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the Project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the Project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significance for GHG emissions if a project complies with regulatory programs to reduce GHG emissions.

Even in the absence of clearly defined thresholds for GHG emissions, the CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency should make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Section 15064.4(a) further provides that a lead agency shall have the discretion to determine, in the context of a particular project, whether: (1) to use a model or methodology to quantify GHG emissions resulting from a project and which model methodology to use and/or (2) to rely on qualitative analysis or performance-based standards. Pursuant to the State CEQA Guidelines Section 15064.4(a), the analysis presented herein uses a model or methodology to quantify GHG emissions resulting from the Project. The analysis contained herein provides a good-faith effort to describe, calculate, and estimate GHG emissions resulting from the Project.

Although the Project's GHG emissions have been quantified, neither CARB, SCAQMD, SCAG, nor the City of Signal Hill has adopted quantitative significance thresholds for assessing impacts related to GHG emissions applicable to the proposed Project. While no thresholds have been adopted, the SCAQMD has been evaluating GHG significance thresholds since April 2008. Most recently, in September 2010, SCAQMD proposed a tiered efficiency target approach to evaluate potential GHG impacts from various uses. This tiered approach allowed for flexibility when analyzing GHG emissions based on project size, land use type, or other characteristics. The various tiers include: (1) potential CEQA exemptions for certain projects; (2) compliance with a qualified GHG reduction strategy; (3) comparison with separate

screening level thresholds for industrial (10,000 $MTCO_2e$/year), commercial (1,400 $MTCO_2e$/year), residential (3,500 $MTCO_2e$/year), and mixed-use (3,000 $MTCO_2e$/year) projects or comparison against a single numerical screening threshold of 3,000 $MTCO_2e$/year for all non-industrial projects; (4) consistency with compliance options, including a performance-based reduction analysis (i.e., compare with a Business-As-Usual level), compliance with AB 32, and/or comparison with efficiency-based thresholds (i.e., quantitative thresholds that are based on a per capita efficiency metric; 4.8 $MTCO_2e$/service population/year for project level analysis and 6.6 $MTCO_2e$/service population/year for plan level analysis); and/or (5) implement offsite mitigation to reduce GHG emission impacts to a less-than-significant level. The draft GHG guidance is included as part of the periodic updates to SCAQMD's Air Quality Handbook; however, the SCAQMD draft interim guidance was never officially adopted. Additionally, the efficiency targets proposed under SCAQMD's Tier 4 threshold are no longer applicable as they were specific to outdated AB 32 goals and do not consider the recently adopted 2030 GHG reduction targets contained in SB 32 and EO B-30-15. Instead, the 2022 Climate Change Scoping Plan was recently approved by CARB in December 2022, and sets the state on a course to reduce GHG emissions an additional 40 percent below 1990 levels by 2045 under AB 1279 (CARB 2022d). Under the previous 2017 Climate Scoping Plan, the CARB recommended statewide efficiency targets of no more than 6.0 $MTCO_2e$/service population/year by 2030 and no more than 2.0 $MTCO_2e$/service population/year by 2050 (CARB 2017b); however, it is important to note that these efficiency targets were intended to apply to sum of all sectors and are not appropriate for evaluating GHG emissions specific to the land use sector, such as the proposed Project. To date, the CARB, SCAQMD, and the City have not adopted new efficiency targets established consistent with AB 1279 for the 2045 target year; however, various other organizations have published technical guidance evaluating potential 2030 efficiency metrics. For instance, in October 2016, the Association of Environmental Professionals (AEP) published *The Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California* (2016). AEP's technical guidance presents data and calculations for a potential adjusted statewide 1990 land use sector emissions inventory and new metric for 2030 of 2.7 $MTCO_2e$/service population/year for the land use sector.

In addition to evaluation of a projects impacts against a quantifiable significant threshold, per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can also be found not cumulatively considerable if the Project would comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the Project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions." Thus, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with programs and/or other regulatory schemes to reduce GHG emissions.

In light of this shifting regulatory environment and available threshold concepts recommended by expert agencies, for the purposes of this CEQA analysis, a project's contribution to cumulative impacts to global climate change would be considered significant if the proposed Project would:

- Generate net new GHG emissions exceeding the numeric threshold of 10,000 $MTCO_2e$/year for industrial projects; or

- Conflict with (and thereby be inconsistent with) the applicable regulatory plans and policies to reduce GHG emissions, which include the emissions reduction measures included within the Green Building Code, SCAG's 2016-2040 RTP/SCS; AB/SB 32, AB 1279, and SB 375; the OPR and Climate Action Team recommendations; and CARB's Climate Change Scoping Plan.

A Project-specific greenhouse gas analysis was conducted and is summarized in the impact discussion below (Section 3.8.3.2); the full analysis titled *Air Quality and Greenhouse Gas Impact Analysis and Technical Repor*t is included as Appendix D to this Addendum. The GHG impact area was not established until after the FEIR was published; however, the analysis of air quality overall did address the operating emissions and impacts related to GHGs specifically.

3.8.3.2 Impact Determinations

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

Less than Significant. The air quality analysis conducted for the FEIR included the analysis of potential GHG emissions. The measures proposed to mitigate GHGs included increased use of green energy from the local utility (electric power such as hydroelectric or wind), installation of low energy lighting, encouragement of carpooling, financial incentives for employees utilizing public transit, and compliance with CARB and SCAQMD fleet rules under Rule 1193.

The increase in mobile source and off-road equipment emissions associated with the Project would generate GHG emissions over the life of the Project. Project-related GHG emissions were estimated using SCAQMD's CalEEMod 2022.1 model (refer to Attachment C). As presented in **Section 1.2**, long-term operational sources of GHG include mobile source emissions associated with the additional worker vehicle trips, collection truck trips, and transfer truck trips. The additional usage of off-road equipment (i.e., loaders) onsite would also generate GHG emissions. Other typical sources of GHGs such landscape maintenance equipment, use of consumer products, and other everyday sources, energy source emissions emitted as a result of activities in buildings when electricity and natural gas are used as energy sources, and emissions related to solid waste, water usage, and wastewater generation were assumed to not change from existing conditions and thus were excluded from the model. Accordingly, Project-related GHG emissions are summarized in **Table 3.8-2**.

Table 3.8-2. Annual Operational GHG Emissions

Emission Source	GHG ($MTCO_2e$/year)
Mobile	2,876.4
Area	0
Energy	0
Water	0
Waste	0
Refrigerants	0
Off-Road	37.77
TOTAL	**2,914.2**
Threshold	**10,000**
Exceed Threshold?	*No*

Source: CalEEMod Results in Attachment C

As summarized in **Table 3.8-2** above, total GHG emissions would be approximately 2,914.2 $MTCO_2e$. However, this estimate is based on the combustion emissions of natural gas and do not account for the net negative GHGs associated with RNG. As detailed in **Section 2.5.1** the entire collection truck fleet is comprised of RNG powered vehicles. The GHG benefits of using RNG in trucks versus traditional diesel trucks has been quantified in the *California Climate Investments Quantification Methodology Emission Factor Database* (Database) which provides well-to-wheel emission factors for various fuel types, including RNG. The RNG fuel-specific factor provided in the Database is -107.63 grams CO_2e per standard cubic foot (scf). Using a "diesel gallon equivalent" (dge) factor of 139.30 scf/dge and a fuel economy of 0.1531 dge/mile for natural gas trucks, the net GHG emissions per year associated with collection vehicle travel (i.e., 2,280 VMT per day over 260 days per year = 592,800 miles per year) is estimated to be -1360.71 $MTCO_2e$/year. Thus, the Project would result in net negative GHG emissions. Although GHG emissions associated with increased activity are associated with the transport and processing of the additional 1,000 tpd of refuse, it's important to note that the Project would not cause the generation of any new waste materials in the region and would instead process waste materials that are, in the baseline condition, currently processed at other existing waste sorting and transferring facilities within the region. Therefore, nearly all, if not all, waste hauling trips to and from the Facility would be redirected existing trips by waste collection vehicles. These vehicles would be (and are, already) collecting solid waste near the City of Signal Hill with or without the proposed Project, and these trips would (and do currently) go to other existing materials processing and sorting facilities, if the permitted capacity of the Facility was not expanded. Operation of MRF/Transfer Station facilities in urban areas will generally always result in improved waste hauling trip regional efficiencies. The primary purpose of an MRF/Transfer Station is to maximize resource recovery and increase the quantity of compostable and recyclable materials diverted from landfills. Utilization of MRF/Transfer facilities closer to urban waste generation markets (i.e., the neighborhoods and communities from which solid waste is collected), minimizes the travel distance of waste collection vehicles, which in turn, reduces GHG emissions.

As summarized above, the SCAQMD does not have adopted numeric thresholds for GHG emissions for CEQA. Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the Project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the

cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "air quality attainment or maintenance plan and/or plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significance for GHG emissions if a project complies with regulatory programs to reduce GHG emissions.

The significance of the proposed Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b) by considering whether the proposed Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. At the time of this writing, the City of Signal Hill has not developed an applicable Climate Action Plan. Therefore, for the purposes of this analysis, the applicable GHG reduction plan to evaluate the proposed Project against is the CARB 2022 Scoping Plan Update which outlines the framework to achieve the GHG emissions reduction goals of AB 1279. Measures included in the Scoping Plan update would indirectly address GHG emission levels associated with Project activities, including the phasing-in of cleaner technology for diesel engine fleets (including transfer trucks and off-road equipment) and the development of a low-carbon fuel standard. Policies formulated under the mandate of AB 32 that apply to Project operations either directly or indirectly, are assumed to be implemented Statewide and would affect the Project should those policies be implemented during the life of the Project. Specifically, implementation of AB 32 control measures for reduced vehicle emissions would decrease GHG emissions from the Project. The Project would also directly support the CARB Scoping Plan's Key Recommended Actions for the waste and energy sectors. The Scoping Plan states, "meeting the AB 341 mandate 75 percent recycling goal is the best path forward to maximizing GHG emissions reductions from the waste management sector." The purpose of the Project is to accommodate the separate sorting lines required to meet the state-level diversion requirements (AB 341). Thus, the Project supports AB 341, AB 1826, and the Scoping Plan waste reduction goals.

In addition, the proposed Project would not conflict with population growth projections of the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), or its goals associated with GHG reductions. Specifically, the Project is anticipated to add 50 employees, which is well within the growth forecasts contained in the 2020-2045 RTP/SCS and the proposed Project would not contribute to growth outside of those projections.

The plan consistency analysis above demonstrates that the Project is consistent with plans, policies, regulations and GHG reduction actions/strategies outlined in CARB's Scoping Plan and SCAG's 2020-2045 RTP/SCS. As the proposed Project would not conflict with applicable plans, policies, and regulations adopted for the purpose of reducing emissions of GHGs, the proposed Project's impacts related to GHG emissions would be less than significant. Further, based on the results of the quantitative analysis as described above, the Project would potentially result in net negative GHG emissions (with consideration given to the use of RNG in the collection truck fleet). Without taking credit for the GHG benefits of using RNG, the estimated Project-related GHG emissions are 2,914.2 $MTCO_2e$ per year. This is well below the threshold of 10,000 $MTCO_2e$ per year established by the SCAQMD for industrial projects. Because the Project is consistent and does not conflict with the applicable plans, policies, and regulations, and

because the Project's incremental increase in GHG emissions is below the applicable numeric threshold of 10,000 $MTCO_2e$ per year, impacts would be less than significant.

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

Less than Significant. The FEIR benchmarked the reduction of project-related emissions relative to the 2003 AQMP. As described above, California has enacted several pieces of legislation that relate to GHG emissions and climate change, much of which sets aggressive goals for GHG reductions within the state. The first and most far-reaching is AB 32, now followed by SB 32, and AB 1279 in which CARB must ensure that statewide GHG emissions are reduced to 85 percent below the 1990 level by 2045. While AB 32 establishes control measures that would apply to light, medium, and heavy-duty vehicles, and the proposed Project would operate those types of vehicles, these measures are being implemented at the state level and the proposed Project would not interfere with the implementation of the control measures. Implementation of AB 32 control measures for reduced vehicle emissions would decrease GHG emissions from the Project. Further, the Project would be consistent with the CARB's 2022 Scoping Plan, and SCAG's 2020–2045 RTP/SCS, therefore, would neither generate GHG emissions that may have a significant impact on the environment nor conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Specifically, the Project would not conflict with the emission reduction measures discussed within CARB's 2022 Scoping Plan Update or the strategies within the 2022 Scoping Plan Update adopted for the purpose of meeting the GHG reduction goals of AB 1279, particularly their emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, the Project would directly support the CARB Scoping Plan's Key Recommended Actions for the waste and energy sectors. The Scoping Plan states, "meeting the AB 341 mandate 75% recycling goal is the best path forward to maximizing GHG emissions reductions from the waste management sector." The purpose of the Project is to accommodate the separate sorting lines required to meet the state-level diversion requirements (AB 341). Thus, the Project supports AB 341, AB 1826, and the Scoping Plan waste reduction goals. Accordingly, the proposed Project would be conducted in compliance with applicable plans, policies and regulations adopted for the purpose of reducing the emissions of GHGs and impacts would be *less than significant*. Therefore, the modified Project would not have a new significant or more severe environmental impact.

3.9 Hazards and Hazardous Materials

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the Project:				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐		☒
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?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Environmental Setting

3.9.1.1 Previous Contamination Site Assessments

The Long Beach Oil Field underlies the general vicinity of the Project Site and was extensively explored and developed in the early 1900's. By 1962, the site no longer had oil derricks, but had operating oil wells and 55-gallon oil drums. Removal of the surface impoundment and tank farm from the site occurred by 1981, although ASTs and 55-gallon drums remained until approximately 1994.

Soil contaminated with total petroleum hydrocarbons (TPH) has been documented onsite and most likely is due to the historic and current operations of the site as an oil field. Concentrations of diesel range hydrocarbons at 7,700 milligrams per kilogram (mg/kg) at 5 feet bgs were detected during an environmental investigation conducted in 1990.

3.9.1.2 Hazardous Household Waste

Hazardous waste is not accepted at the site. Household hazardous waste is collected as part of the Facility's accepted materials as a PHHWCF, and not outside of these specific events conducted with public partners. The Hazardous Waste Exclusion and Hazardous Waste Storage Plan describe on-site procedures in the event that hazardous or infectious waste is discovered in the tipping area. These plans

include procedures to identify the responsible collection vehicle and document the materials illegally disposed of at the Facility.

3.9.2 Regulatory Setting

3.9.2.1 State

3.9.2.1.1 Uniform Fire Code--Hazardous Materials Management Plan, Hazardous Materials Inventory Statement

The Uniform Fire Code (UFC) prescribes regulations that are consistent with best practices to address fire and explosion hazards with storage of hazardous materials, handling and use of hazardous substances, materials and devices. The State Fire Marshal has adopted the UFC, with amendments, as the California Fire Code. Local fire departments are required to have local fire codes that are no less stringent than the state fire code.

3.9.2.2 Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program)

Senate Bill 1082 of 1993 (HSC Chapter 6.11) required the Secretary of the CalEPA to establish a "unified hazardous waste and hazardous materials management" regulatory program (Unified Program) by January 1, 1996. Currently, there are 83 CUPA in California. The Los Angeles County Fire Department serves as the CUPA for EDCO's operations, and the County Fire Code contains various provisions related to safety, site design, and access applicable to the Project. determined that the Facility is in conformance with applicable standards, pursuant to PRC, Section 44151.

3.9.2.3 California Occupational Safety and Health Act of 1973 –Labor Code Section 6300-6332

Cal/OSHA is responsible for developing and enforcing the workplace safety regulations in Title 8 CCR. Cal/OSHA hazardous materials regulations require safety training, availability of safety equipment, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

3.9.2.4 Local

3.9.2.5 Signal Hill General Plan

The Land Use Element (2001), and Safety Element (2016) of the City of Signal Hill General Plan address hazards and hazardous materials in goals and policies, as outlined in **Table 3.9-1.**

Table 3.9-1: Applicable City of Signal Hill General Plan Goals and Policies

Element	Goal	Policy	Applicability
Land Use	Goal 3: Assure a safe, healthy, and aesthetically pleasing community for residents and businesses.	Policy 3.6: Provide for undesirable or hazardous, commercial or industrial uses while avoiding concentrating those uses in close proximity to schools or residential	Project site is required to comply with existing CUP 09-01 conditions as well as the LEA responsible regulatory agency (Los Angeles County Public

Element	Goal	Policy	Applicability
		neighborhoods, and ensure adequate monitoring of those uses, which involve hazardous materials to avoid industrial accidents, chemical spills, fire, and explosions.	Health), including requirements of the SWFP regulated by the LEA. No Hazardous Wastes are accepted as part of the refuse accepted daily.

Source: City of Signal Hill 2001

3.9.3 Impact Assessment

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

The FEIR determined there was no impact to the use, transport, or disposal of hazardous material. As discussed in Section 3.9.1 above, hazardous waste collected as part of EDCO's Permanent Hazardous Household Waste Collection Site events available to County residents, would continue to be handled and disposed of at the Facility site in accordance with applicable federal, state, and local regulations. Even with the proposed increase in volume of waste accepted per day, EDCO would continue to maintain compliance with state and local regulations for hazardous waste disposal and the Project would have no new significant impact on hazardous material disposal as compared to EDCO's existing operation.

Outside of the designated collection events for household hazards, no hazardous wastes are accepted at the Facility, and therefore, there would be no new hazards associated with the Project. Part of the SWFP requirements includes compliance with the approved Hazardous Waste Screening Program as part of the TPR. As described in the paragraph above, the Project would not affect EDCO's regulatory applicability to local, state, and federal hazardous materials regulations for storage and disposal compliance with the applicable programs and permits for hazardous materials. With no routine transport, use, and disposal of hazardous materials proposed as part of the Project, there would be no impact, and the Project would not result in any new or more severe impacts than described in the FEIR.

HAZ (b). Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

As stated in HAZ(a), any transport, use, or disposal of hazardous materials would be limited to typical equipment used during routine operations; all operations are subject to regulations, controls, and periodic updates via the LEA and CUP requirements. On-going hazardous waste exclusion and monitoring program will be conducted in accordance with local and state regulations. The FEIR determined there were less than significant impacts with mitigation relative to hazardous material release; these mitigations are due to the Project site's historic use as an oil field. This addendum considers the additional existing operation of a PHHWCP at the Facility, and the proposed increase in waste accepted per day would not require any ground disturbance. Therefore, no new significant impacts and no more severe impacts than described in the FEIR would occur as a result of the Project.

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

The FEIR determined there was no impact to schools in the vicinity from Project implementation. There are no schools within one-quarter mile of the Project site. The closest school is the Oakmont Academy located approximately 0.45 miles west of the Project site. Therefore, because the Project is not located within the identified significance threshold distance for a school, no new or more severe impacts related to handling hazardous materials or waste near a school would occur as a result of the Project.

HAZ (d). Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The FEIR determined that the EDCO Facility was on a hazardous materials site and could create a significant impact, with mitigation measures both short and long impacts were reduced to a less than significant level. None of the originally proposed mitigation is concerned with the daily operations of the Facility (only relevant to construction excavation and grading). The Project would involve increasing the amount of material accepted at the Facility each day and would not require any ground disturbance which could create a significant hazard to the public or the environment. Because mitigation identified in the FEIR is not required for continued operation, and no new or more severe impacts compared to the FEIR would result, the Project has no impact.

HAZ (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?***

The Project site is within two miles of the Long Beach Municipal Airport, a public use airport, but outside of the adopted Planning Boundary/Airport Influence Area. Commercial and private aircraft and emergency helicopters accessing the Long Beach Memorial Medical Center fly over the Project site. The FEIR determined there were less than significant impacts to persons residing or working in the Project area associated with airport hazards. The Project would not require the construction of any new structures that could result in a safety hazard or excessive noise in addition to the current flyovers for the residents living and working near the Project site. Therefore, no new significant impacts and no more severe impacts than described in the FEIR would result.

HAZ (f). Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The FEIR determined that no impacts to emergency response plans would result from operation of the EDCO Facility. The Project would allow for increased volumes of waste to be accepted at the EDCO Facility which would result in a related increase in average daily trips and vehicle miles traveled, as described in Section 2. A complete analysis of impacts to transportation is included in Section 3.17. As described in Section 3.17, all transportation impacts of the Project would be less than significant, and all additional trucks would travel on the existing routes to reach the Site. Accordingly, the Project would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan and no new significant impacts or more severe impacts than described in the FEIR would result.

HAZ (g). Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The FEIR determined there were no impacts to wildland fire risk. Accordingly, the Project would not result in any new significant impacts or more severe impacts than as described in the FEIR. The Project site is not located in a "Very High Fire Hazard Severity" area. According to the current Fire Hazard Severity Zone Maps published by the California Department of Forestry and Fire Protection, the Project site is located within an undesignated Fire Hazard Severity Zone (within a Local Responsibility Area). None of the adjacent areas are designated as "Very High"or "High" Fire Hazard Severity Zone. Additionally, the Facility is located within a developed urban area and would not be especially prone to wildfires due to the lack of natural vegetation and open spaces.

The continuation of existing on-going operations would not result in new on- or offsite physical changes that could expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Management of flammable materials stored onsite would continue to be conducted in accordance with applicable regulations. For these reasons, the Project would have no impact to the potential to expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

3.10 Hydrology and Water Quality

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the Project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
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: i. result in a substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii. 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; or	☐	☐	☐	☒
iv. impede or redirect flood flows?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the Project:				
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.10.1 Environmental Setting

The City of Signal Hill is located within the boundaries of both the Los Cerritos Channel and the Lower Los Angeles River watersheds. The Los Cerritos Channel Watershed consists of a small, urbanized watershed that encompasses 17,711 acres in the Los Cerritos Channel and Alamitos Bay Watershed Management Area. This watershed includes the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount, and Signal Hill as well as unincorporated land. Approximately 531 acres of Signal Hill is included in this watershed which makes up 3 percent of the total watershed area (Los Cerritos Channel Watershed Group 2017). This watershed has an associated watershed management plan. Signal Hill also comprises approximately 774 acres of the Lower Los Angeles River Watershed and is located within the Lower Los Angeles River Watershed Management Area which has an associated watershed management plan (Lower Los Angeles River Watershed Group 2015). The Newport-Inglewood Fault is the topographical feature that dictates the direction that surface water drains into these two watersheds. Surface water runoff originating on Signal Hill's north side slope (north of the Newport-Inglewood Fault) generally flows into the Los Cerritos Channel Watershed, while the runoff from the south side slope generally flows into the Lower Los Angeles River Watershed.

3.10.1.1 Topography and Climate

The topography of Signal Hill is defined by the hill located in the central southeast portion of the City of Signal Hill which formed along the Newport-Inglewood Fault Zone. Elevation in the City of Signal Hill ranges from 25 feet above sea level in the southwest portion to 370 feet above sea level at the hilltop plateau (City of Signal Hill 1986). Slopes generally vary from 10 to 80 percent, with the steepest slopes occurring along and adjacent to the hilltop area. The greatest percentage of slope change occurs on the southerly slopes of Signal Hill with an average of 40 percent slope and increasing to as much as 80 percent slope. Slopes in the adjacent areas are more gradual and primarily ranges from 5 to 10 percent (City of Signal Hill 1986).

The City of Signal Hill is located within Southern California's coastal plain, and experiences a Mediterranean climate with warm, dry summers and mild winters. Historical climate data collected from the Western Regional Climate Center's Long Beach Daugherty Field Station for the period of January 1, 1949, to June 9, 2016, indicates an average monthly temperature maximum of 83.9°F for August and an

average monthly minimum of 45.3°F for December. Average annual precipitation has historically been approximately 12 inches, with the most precipitation occurring between November and April.

3.10.1.2 Surface Water

Los Angeles River Reach 1 is the closest surface water body to Signal Hill, located approximately 1.2 miles east from the City of Signal Hill's eastern boundary. All surface water runoff is directed to surface water bodies outside the City of Signal Hill via Municipal Separate Storm Sewer ("MS4") discharges. The City of Signal Hill is surrounded by areas under the jurisdiction of the City of Long Beach; therefore, any discharges originating from within the City of Signal Hill must pass through the City of Long Beach before reaching any receiving water. The City of Signal Hill is served by two stormwater flood control facilities, the Hamilton Bowl and the California Bowl, which control major portions of the City of Signal Hill's drainage before discharging to the MS4 and provide opportunities for urban-runoff capture, treatment, infiltration, and monitoring. Specifically, the Hamilton Bowl is a 15-acre flood control facility, owned and operated by the Los Angeles County Flood Control District. Approximately half of the City of Signal Hill's stormwater runoff flows to the Hamilton Bowl where it is retained and eventually discharged into the Los Angeles River.

During precipitation events in the Project Area, rainwater picks up and transports pollutants through stormwater conveyance systems, ultimately discharging runoff to "receiving waters," which include the Los Angeles River and Pacific Ocean. The same occurs as non-storm runoff from various land uses and activities flows in sufficient quantities from individual sites and enters the municipal storm drain system. Whether runoff deposits pollutants in storm drains or transports pollutants to receiving waters, the constituent pollutants will eventually reach the receiving waters.

3.10.1.3 Groundwater

Signal Hill and the surrounding area overlie two main groundwater basins, the West Coast Basin and the Central Basin. The Project site is within the West Coast Hydrologic Subarea of the Coastal Plain of Los Angeles County. Groundwater occurs in the underlying alluvial deposits that consist primarily of sand and silty sands. These groundwater basins are separated by the Newport-Inglewood Fault Zone, which partially restricts the flow of groundwater.

Signal Hill's water supply consists primarily of groundwater produced from the Central Basin and treated surface water. The City of Signal Hill currently utilizes two groundwater production wells that make up approximately 90% of the water supply (City of Signal Hill 2022b). Imported water is used as a supplemental supply during periods of high demand or in the case that a well is shut down for maintenance or other issues that may arise (City of Signal Hill 2021a). The total pumping capacity of wells operated by the City of Signal Hill is 3,585 gallons per minute. As stated in the City's Urban Water Management Plan, the newest well, Well No. 9, came online in October 2017 and is located within the City, northeast of the intersection of Cherry Avenue and 28th Street (City of Signal Hill 2021a). The City has drilled another well, Well No. 10, which is anticipated to be completed in 2022. Once Well No. 10 is completed and online, the City of Signal Hill water supply is expected to be wholly provided by groundwater (City of Signal Hill 2021a).

The City of Signal Hill pays a replenishment assessment to the Water Replenishment District of Southern California for each acre-foot of water that is pumped out of the Central Basin. The Water Replenishment District manages the groundwater replenishment and groundwater quality activities in 43 cities that overlie the Central Basin and West Coast Basin in southern Los Angeles County (WRD 2022).

3.10.1.4 Groundwater Quality

The expected beneficial uses for groundwater at the Project site are MUN (Municipal and Domestic Supply), IND (Industrial Service Supply), PROC (Industrial Process Supply) and AGR (Agricultural Supply). However, extensive oilfield activities have impaired groundwater quality so that the near surface aquifers are not considered for potable water (City 2016).

3.10.1.5 Groundwater Levels

On average, water levels fell by nearly four feet across the Water Replenishment District's service area[3] in Water Year 2020-2021 (WRD 2022). In Water Year 2020-2021, groundwater levels decreased across the Central Basin with the greatest decrease occurring in the northern portion of the basin where water levels decreased by up to 20 feet compared to the previous year (WRD 2022). Decreases in water level ranged from three to 15 feet in other areas of the Central Basin, with much of the basin decreasing between one to five feet in groundwater elevation (WRD 2022). The City of Signal Hill boundaries fall within the area with a decrease of one to five feet as well as areas of no significant change in groundwater elevation. Changes in groundwater levels within the West Coast Basin were variable in Water Year 2020-2021. Overall, water levels remained relatively unchanged from the previous year, and some areas have increased by up to four feet or decreased by two feet compared to Water Year 2019-2020. Overall, there was a loss in groundwater storage within the Central Basin of approximately 66,900 acre-feet in Water Year 2020-2021, and there was no appreciable change in groundwater storage in the West Coast Basin (WRD 2022).

3.10.1.6 Flood Hazards

In general, Signal Hill is not subject to flood hazards and there are no special flood hazard areas in the City of Signal Hill. Due to topography, infrequent but intense rainfall can present minimal flooding problems in parts of the City of Signal Hill. Areas with the greatest potential for rainfall-related flooding are in localized areas to the south, southeast, and southwest of the Hilltop area. Regional flood control for the City of Signal Hill and all of Los Angeles County is under the jurisdiction of the Los Angeles Flood Control District (LACFCD). The LACFCD has responsibility for major water courses and for establishing standards for local drainage. In addition, the City of Long Beach owns and maintains a number of drainage and water quality facilities in the Project vicinity. The City of Long Beach, including the City of Signal Hill, is divided into 30 major drainage basins for flood control planning purposes. Signal Hill contributes runoff to drainage Basins 06, 07, 08, 09 and 18. The Project site is in Basin 06, which is bound on the north, south, east and west by West Wardlow, Eagle Street, California Avenue and the L.A.

[3] WRD's service area includes 43 cities that overlie the Central Basin and West Coast Basin in southern Los Angeles County.

River, respectively. Stormwater from Basin 06 is ultimately discharged to the Los Angeles River, approximately 1.3 miles west of the Project site (City of Signal Hill 2016).

3.10.2 Regulatory Setting

3.10.2.1 Federal

3.10.2.1.1 Clean Water Act

The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the Waters of the United States and regulating quality standards for surface waters, including lakes, rivers, and coastal wetlands. The basis of the Clean Water Act was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. Under the Clean Water Act, USEPA has implemented pollution control programs and has developed national water quality criteria recommendations for pollutants in surface waters. In California, the SWRCB and its nine regional water quality control boards administer various sections of the Clean Water Act, and section 402 of the Clean Water Act establishes NPDES requirements. Under Section 402, a permit is required for point source discharges of pollutants into navigable waters of the United States (other than dredge or fill material). Point sources are discrete conveyances such as pipes or man-made ditches. These permits require development and adherence to SWPPPs, which include BMPs to control stormwater discharges.

Section 303 of the Clean Water Act requires that California adopt water quality standards. In addition, under Clean Water Act Section 303(d), states are required to identify “impaired waterbodies” (those not meeting established water quality standards), identify the pollutants causing the impairment, establish priority rankings for waters on the list, and develop a schedule for development of control plans to improve water quality. USEPA then approves the state’s recommended list of impaired waters or adds to and/or removes waterbodies from the list.

In accordance with Section 303(d) of the Clean Water Act, the SWRCB has listed both the Los Angeles River Reach 1 and Los Cerritos Channel as water quality impaired. Los Angeles River Reach 1 (Estuary to Carson Street) is water quality impaired for: indicator bacteria, cyanide, ammonia, cadmium, copper (dissolved), lead, nutrients (algae), trash, zinc (dissolved), and pH. The Los Cerritos Channel is water quality impaired for: ammonia, Bis(2ethylhexyl) phthalate, chlordane (sediment), copper, indicator bacteria, lead, trash, zinc, and pH (SWRCB 2022).

3.10.2.2 State

3.10.2.2.1 Porter-Cologne Water Quality Control Act

The Porter-Cologne Act requires the regional water quality control boards to adopt water quality control plans (Basin Plans) for the protection of surface water and groundwater quality. The Act also authorizes the RWQCBs to issue waste discharge requirements (WDRs), including NPDES Permits. Any activity, discharge, or proposed activity or discharge from a property or business that could affect California’s surface, coastal, or groundwater will (in most cases) be subject to WDR. The California Water Code authorizes the SWRCB and the RWQCBs to conditionally waive WDRs if this is in the public interest. For this Project, the Los Angeles RWQCB is the board with jurisdictional authority.

3.10.2.2.2 Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

All incorporated cities in Los Angeles County, except Long Beach are subject to the Standard Urban Stormwater Mitigation Plan (SUSMP) requirements of NPDES Permit No. CAS004001, Order No. 01-182. This permit was issued by the State of California Regional Water Quality Control Board, Los Angeles Region in December 2001. The City of Long Beach operates under its own Municipal NPDES Permit No. CAS004003 (CI 8052) and has NPDES and SUSMP regulations detailed in Chapter 18.95 of the Long Beach Municipal Code.

The Project is subject to the SUSMP requirements because it is a commercial/industrial development with at least one acre of impermeable area, including parking areas (City of Signal Hill Municipal Code, Chapter 12.16). For an individual Project, a SUSMP must be prepared explaining the type of development and drainage of the site, and how the Project affects post- construction water quality and habitat impact issues. It must contain BMPs that will be implemented to address stormwater pollution and peak flow discharge impacts.

3.10.2.2.3 Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

The Los Angeles Regional Water Quality Control Board Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. The basin plan designates beneficial uses for surface and ground waters, sets objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and describes implementation programs to protect all waters in the region (LARWQCB 2014).

3.10.2.2.4 Signal Hill General Plan

The Environmental Resources Element (1986) and Land Use Element (2001) of the City of Signal Hill General Plan addresses hydrology and water quality in goals and policies, as outlined in **Table 3.10-1.**

Table 3.10-1. Applicable City of Signal Hill General Plan Goals and Policies

Element	Goal	Policy	Applicability
Environmental Resources	Goal 5: Ensure minimal degradation to the physical environment from development or operational activities and require restoration of the environment where degradation has occurred.	Policy 5.2: Protect water quality and conserve water supplies through reducing and eliminating contamination from industrial operations or resource development activities. Cooperate and participate in regional water quality and water supply plans, programs and implementation measures.	The Project site is required to comply with NPDES permit requirements.
Land Use	Goal 3: Assure a safe, healthy, and aesthetically pleasing community for residents and businesses.	Policy 3.18: Minimize the impacts of storm water runoff to the maximum extent practicable, on the biology,	Project would continue to implement a SUSMP at the Facility. Project would not include changes to existing

Element	Goal	Policy	Applicability
		water quality and integrity of natural drainage systems and water bodies	onsite drainage conditions or containment structures.
		Policy 3.19: Maximize to the extent practicable, the percentage of permeable surfaces to allow more percolation of storm water runoff into the ground	Project would continue to implement a SUSMP at the Facility.
		Policy 3.20: Minimize to the extent practicable, the amount of storm water directed to impermeable areas and to the municipal separate storm water system. Build storm water pollution prevention systems into all development projects including maximizing landscaped areas and providing areas for storm water storage and sedimentation.	Project would continue to implement a SUSMP at the Facility.
		Policy 3.21: Require new Projects to include permanent controls to reduce storm water pollutant loads from development sites including parking lots to the maximum extent practicable.	Project would continue to implement a SUSMP at the Facility.

Source: City of Signal Hill 1986, 2001

3.10.2.2.5 City of Signal Hill Municipal Code—Chapter 12.16

The intent of Chapter 12.16 of the Municipal Code is to protect public health, welfare, and safety and to reduce the quantity of pollutants discharged to Waters of the U.S. Specifically, the provisions outlined in Chapter 12.16 intend to accomplish the following:

- Eliminate non-storm water discharges to the municipal storm drain system;
- Eliminate the discharge of pollutants into the municipal storm drain system;
- Reduce pollutants in storm water discharges to the maximum extent practicable;
- Protect and enhance the quality of Waters of the U.S. in a manner consistent with provisions of the CWA; and
- Reduce contribution of pollutants from the MS4 through interagency coordination.

This chapter focuses on ensuring any commercial, industrial, or construction activity complies with all USEPA and SWRCB stormwater discharge requirements through pollutant reduction strategies, including BMPs and low impact development with emphasis put on compliance with the municipal separate storm sewer system (MS4) Permit.

3.10.2.2.6 Lower Los Angeles River & Los Cerritos Watershed Management Programs

The City of Signal Hill is a permittee under the Los Angeles RWQCB Order No. R4-2012-0175, adopted on November 08, 2012, which enacted WDRs for MS4 discharges within the coastal watersheds of Los

Angeles County. The MS4 Permit established strict numerical limits regarding the quantity of pollutants that can be discharged by stormwater and urban runoff. To comply with the MS4 Permit, the City of Signal Hill has submitted Watershed Management Programs for the Lower Los Angeles River and the Los Cerritos Channel watersheds. Both programs include a commitment to reduce the quantity of pollutants carried by soil and sediment.

3.10.3 Impact Assessment

HYD (a). Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The FEIR determined that impacts would be less than significant; long term BPMs are identified in the final SUSMP created as part of the original approval of the Facility. The structural BPMs presented in the FEIR are existing mitigation measures, and therefore would be continued as part of the existing Project; no new mitigation is proposed. No new significant impacts or more severe impacts than described in the FEIR would result. New Project activities would not alter any hydrologic or water quality element of the Facility or its operations. Existing BMPs established by the SUSMP and Project-specific SWPPP are in place to minimize any impact to stormwater discharge, and the system would continue to capture and treat runoff.

HYD (b). Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

There is no expected incremental increase in water demands, as the Project would not require the hiring of any new employees. There would be no changes to the existing use of groundwater supplies, and all existing BMPS under NPDES No. CAS004001 and Waste Discharge Requirements Order No. 01-182 would continue to be required. The FEIR determined there were no impacts to groundwater supplies relative to the Facility. No new significant impacts or more severe impacts than described in the FEIR would result.

HYD (c). Would the Project 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:

i. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

The Project site is on a fully developed lot amid dense industrial and commercial land uses within the City of Signal Hill. No construction or ground disturbing activities are proposed as part of the Project, and therefore no changes to the drainage at the Project site. The FEIR determined less than significant impacts would occur with mitigation. The existing Project SUSMP ensures runoff flow rate, volume, velocity, and duration for the post-development condition to not exceed the pre-development condition for the 10-year, 24-hour rainfall event. Existing bioretention basins and other stormwater controls that mimic pre-development conditions remain in place. For the entire Project, the post-development Q10 will be less than the pre-development Q10. There would be no impact due to the

increase in tonnage, and no mitigation identified in the FEIR is required to implement the Project. Accordingly, no new significant impacts or more severe impacts than described in the FEIR would result.

ii. 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; or

To account for increased stormwater runoff and to restore some of the site's natural purification characteristics, the existing Facility *Development Plans for Stormwater Management -- A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP),* would continue to apply the permanent BMPs to effectively minimize the negative impacts of the Project's storm water runoff. The water quality treatment design standard is the runoff from the first ¾" of rainfall. The BMPs would continue to meet the most current City and Regional Board requirements for stormwater mitigation. The FEIR determined that there were less than significant impacts to runoff from operation of the EDCO Facility. As no construction or ground-disturbing activities are proposed as part of the Project, there would be no impact due to the increased tonnage. Therefore, no new significant impacts or more severe impacts than described in the FEIR would result.

iii. impede or redirect flood flows?

The FEIR determined that there were no impacts due to flood flows relative to the Facility. As no construction or ground-disturbing activities are proposed as part of the Project, no new significant impacts or more severe impacts than described in the FEIR would result.

HYD (d). In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

No Impact. The FEIR determined there to be no impact; the Project site is not within an area subject to seiche, tsunamic, or mudflow risks. The FEIR determined that there were no impacts due to flood hazards, as the Facility is outside of the 100-year and 500-year floodplain. As the Project would only involve changes to operations inside the EDCO Facility, which as established above, is outside designated flood hazard, tsunami, or seiche zones, and therefore Project would result in no new significant impacts or more severe impacts than as described in the FEIR.

HYD (e). Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. No sustainable groundwater management plans were evaluated in the FEIR due to changes in regulation since its publishing in 2009; there were no such management plans. The increase in tonnage would have no impact with regard to the existing mitigation in the form of Project-specific SWPPP requirements. Existing BMPs and compliance with NPDES and Project-specific SWPPP requirements would continue under the Project. Therefore, the Project would have no new significant impacts or more severe impacts than described in the FEIR relative to water quality standards.

3.11 Land Use and Planning

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning. Would the Project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

3.11.1 Environmental Setting

The City of Signal Hill is located in the South Bay area of the greater Los Angeles region, surrounded by the incorporated City of Long Beach. Other incorporated cities near the City include Los Angeles, Seal Beach, Carson, and Lakewood. The EDCO Facility is about one mile south of U.S. Interstate 405 (San Diego Freeway); approximately one mile east of U.S. Interstate 710 (Long Beach Freeway); and approximately one mile north of State Route 1 (Pacific Coast Highway). The site is approximately 3.5 miles northeast of the Port of Long Beach, one mile east of the Los Angeles River, and one mile west of the Long Beach Airport. The Facility is located in a developed urban area, consistent with the surrounding land uses. The Project site is within a SP-19 zoning designation (General Industrial Specific Plan).

3.11.2 Regulatory Setting

3.11.2.1 Local

3.11.2.2 Signal Hill General Plan

The Land Use Element (2016) of the Signal Hill General Plan addresses land use goals and policies, as outlined in **Table 3.11-1.**

Table 3.11-1. Applicable City of Signal Hill General Plan Goals and Policies

Element	Goal	Policy	Applicability
Land Use	Goal 1: Manage growth to achieve a well-balanced land use pattern that	Policy 1.11 - Encourage a wide range of responsive and accessible public facilities and community services,	The Facility will continue to provide the City of Signal Hill municipal waste

Element	Goal	Policy	Applicability
	accommodates existing and future needs for housing, commercial and industrial land, open space, and community facilities and services, while maintaining a healthy, diversified economy adequate to provide future City revenues.	including fire and police protection, library and educational, cultural and recreational opportunities, and other municipal services.	services, which is consistent with Policy 1.11.

Source: City of Signal Hill 2016

3.11.3 Impact Assessment

LUP (a). Would the Project physically divide an established community?

The FEIR determined there were no impacts with regards to dividing an established community. The Project would not change any circulation or access patterns between community inhabitants and desired services or locations. The Facility would continue to operate as an existing solid waste facility site in an area characterized as developed/urban and designated by the General Plan as SP-19. No new Project activities are proposed outside of the footprint of the CUP. Therefore, the Project would have no impact to land use, and no new significant impacts or more severe impacts than as described in the FEIR would result.

LUP (b). Would the Project 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?

The Facility is operated in accordance with all prior conditions of approval which were adopted to mitigate potential environmental impacts. The FEIR determined there were no impacts to land use relative to construction and operations. No construction would occur as a result of the Project, and therefore, the Project would not result in any new significant impacts or more severe impacts than as described in the FEIR.

3.12 Mineral Resources

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources. Would the Project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.12.1 Environmental Setting

The California Geological Survey (CGS) identifies three classes of Mineral Resource Zone (MRZ). MRZ-1 is an area with no significant mineral deposits, while MRZ-2 is an area with significant mineral deposits, and MRZ-3 is an area containing known mineral occurrences of undetermined mineral significance (CGS 2021a). The Mineral Resource Zone classification areas in Signal Hill are shown in the California Geological Survey's mineral resources map, "Generalized Mineral Land Classification Map of Los Angeles County: South Half" (CGS 1994). The Project Site is located within the MRZ-3 zone, where the significance of the minerals cannot be determined. The City of Signal Hill planning documents do not identify any mineral resources.

The majority of the City of Signal Hill is located within the Long Beach Oil Field. As a result, Signal Hill contains active, idle, and plugged and abandoned wells throughout the City. The Project area is located within an area previously utilized for petroleum extraction, however, the wells have been plugged and abandoned since 1941. The Project site and the surrounding area have since been developed for residential uses.

3.12.2 Regulatory Setting

3.12.2.1 State

3.12.2.1.1 Surface Mining and Reclamation Act (SMARA)

Sections 2761(a) and (b) and 2790 of the Surface Mining and Reclamation Act provide for a mineral lands inventory process termed classification-designation. The California Division of Mines and Geology and the State Mining and Geology Board are the state agencies responsible for administering this process. The primary objective of the process is to provide local agencies with information on the location, need, and importance of minerals within their respective jurisdictions. It is also the intent of this process that this information be considered in future land-use decisions planning decisions. Under Surface Mining and Reclamation Act, local land use jurisdictions are the enforcing lead agencies for mineral resource issues, which state agencies guide and regulate city and county enforcement of Surface Mining and Reclamation Act.

3.12.3 Impact Assessment

MIN (a). Would the Project 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?

Min (b). Would the Project 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?

With respect for these two questions, the FEIR determined that operation of the EDCO facility would result in no impacts to mineral resources. The Project site is located within a developed area and has been previously disturbed from its previous uses. The Project site is not located within a known mineral resource zone. While the Project site is located within the Long Beach Oil Field which is an active oil field

and extraction area, there are no active extraction activities occurring on the Project site. No impacts to mineral resources would occur. Therefore, the Project would not result in any new significant impacts or more severe impacts than as described in the FEIR.

3.13 Noise

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Noise. Would the Project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☒	☐

3.13.1 Environmental Setting

3.13.1.1 Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses, as are commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance.

There are numerous sensitive receptors in proximity to the Facility as summarized in **Table 3.13-1.**

Table 3.13-1. Sensitive Receptors in Proximity to the Facility.

Direction from Project Site	Sensitive Receptor	Distance to Nearest Project Component
Northwest	K Wellness Holistic Health Spa (701 E. 28th St.)	520 feet
West	Memorial Orthopedic Surgical Group (2760 Atlantic Ave.)	460 feet
West	Atlantic Memorial Healthcare Center (2750 Atlantic Ave.)	475 feet
East	Willow Springs Park (2745 Orange Ave.)	860 feet
Southwest	Single-Family Residences (Lime Ave.)	625 feet
South	Long Beach Islamic Center (995 E. 27th St.)	225 feet
South	Undershirt Inc. (931 E. 27th St.)	165 feet
South	Commercial Building (901 E. 27th St.)	224 feet
South	Cal Institute of EMT Training Institute (2669 Myrtle Ave.)	380 feet
South	Commercial Building (999 E. Willow St.)	895 feet
South	EDCO Customer Service Office (950 E. 27th St.)	430 feet
Southeast	Sunnyside Cemetery (1095 Ea. Willow St.)	480 feet

1.1.1.3 Existing Noise Sources and Ambient Noise Levels

The existing ambient noise environment is consistent with that of a developed urban and industrial area. Because of the active industrial zoning, naturally elevated baseline noise levels are common and generally persistent. Existing noise sources near the Project site receptors include traffic/transportation noise, adjacent Ready-Mix operations, adjacent and oil and gas operations, and natural sounds (wind, dogs barking, etc.). Other existing intermittent yet significant noise sources included motorcycles and occasional aircraft flyovers. These surrounding noise sources constitute the existing physical conditions. Per City of Signal Hill Municipal Code 19.16.020(B), presumed ambient noise levels in industrial zones is 70 dBA during daytime hours (7 a.m. to 10 p.m.) and 70 dBA during nighttime hours (10 p.m. to 7 a.m.).

3.13.1.2 Existing Vibration Environment

Similar to the environmental setting for noise, the vibration environment is dominated by traffic from nearby roadways. Heavy trucks can generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions. According to the FTA (2018), *Transit noise and Vibration Impacts Assessments*, "if the roadway is fairly smooth, the vibration from rubber-tired traffic is rarely perceptible." Roads in the Project area are finished with smooth asphalt and it is unlikely that traffic on the local roadway is perceptible.

3.13.2 Regulatory Setting

3.13.2.1 Federal

3.13.2.1.1 Noise Control Act of 1972

USEPA, pursuant to the Noise Control Act of 1972, established guidelines for acceptable noise levels for sensitive receptors such as residential areas, schools, and hospitals. The levels set forth are 55 dBA L_{dn} for outdoor use areas and 45 dBA L_{dn} for indoor use areas, and a maximum level of 70 dBA L_{dn} is identified for all areas to prevent hearing loss (USEPA 1974). These levels provide guidance for local jurisdictions but do not have regulatory enforceability. In the absence of applicable noise limits, the USEPA levels can be used to assess the acceptability of project-related noise.

3.13.2.1.2 U.S. Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development (HUD) has also established guidelines for acceptable noise levels for sensitive receivers such as residential areas, schools, and hospitals (24 CFR 51). HUD's noise levels include a two-pronged guidance, one for the desirable noise level and the other for the maximum acceptable noise level. The desirable noise level established by HUD conforms to the USEPA guidance of 55 dBA L_{dn} for outdoor use areas of residential land uses and 45 dBA L_{dn} for indoor areas of residential land uses. The secondary HUD standard establishes a maximum acceptable noise level of 65 dBA L_{dn} for outdoor use areas of residential areas.

3.13.2.1.3 Federal Transit Authority

The FTA has published guidance relevant to assessing ground-borne vibration associated with construction activities, which have been applied by other jurisdictions to other types of projects (FTA 2018). For example, engineered concrete and masonry (no plaster) buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage. Buildings extremely susceptible to vibration damage (e.g., historic buildings) can be exposed to ground-borne vibration levels of 0.12 in/sec without experiencing structural damage.

3.13.2.2 State

The California Code of Regulations (CCR) has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as shown in **Table 3.13-2** below.

The extensive state regulations pertaining to worker noise exposure are applicable to the proposed Project (for example California Occupational Safety and Health Administration Occupational Noise Exposure Regulations [8 CCR General Industrial Safety Orders, Article 105, Control of Noise Exposure, Section 5095, et seq.]), for workers in a "central plant" and/or maintenance facility, or for those involved in the use of maintenance equipment or heavy machinery.

Table 3.13-2. Estimated Existing Noise Exposure for General Assessment

Land Use Category	Noise Exposure Ranges (dB CNEL) Normally Acceptable[1]	Noise Exposure Ranges (dB CNEL) Conditionally Acceptable[2]	Noise Exposure Ranges (dB CNEL) Normally Unacceptable[3]	Noise Exposure Ranges (dB CNEL) Clearly Unacceptable[4]
Residential: Low-density Single Family, Duplex, Mobile Homes	<60	55-70	70-75	>75
Residential: Multiple Family	<65	60-70	70-75	>75
Transient Lodging: Motels, Hotels	<65	60-70	70-80	>80
Schools, Libraries, Churches, Hospitals, Nursing Homes	<70	60-70	70-80	>80
Auditoriums, Concert Halls, Amphitheaters	Undefined	<70	>65	Undefined
Sports Arena, Outdoor Spectator Sports	Undefined	<75	>70	Undefined
Playgrounds, Neighborhood Parks	<70	67-75	>73	Undefined
Golf Courses, Riding Stables, Water Recreation, Cemeteries	<75	Undefined	70-80	>80
Office Buildings, Business Commercial and Professional	<70	67-77	>75	Undefined
Industrial, Manufacturing, Utilities, Agriculture	<75	70-80	>75	Undefined

Source: California Office of Planning and Research (OPR) 2017

Notes:

1. Normally Acceptable: specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction without any special noise insulation requirements.
2. Conditionally Acceptable: New construction or development should only be undertaken after a detailed analysis of the noise reduction requirements is made and the needed insulation features included in the design.
3. Normally Unacceptable: New construction or development should generally be discouraged. If new development is to proceed, a detailed analysis of the noise reduction requirements is made, and the needed insulation features are included in the design.
4. Clearly Unacceptable: New development or construction should not be undertaken.

3.13.2.3 Local

3.13.2.3.1 City of Signal Hill General Plan Noise Element

The City of Signal Hill General Plan (City of Signal Hill 2009), Noise Element, has a number of goals and policies related to noise. City of Signal Hill General Plan noise policies that apply to the Project are summarized in **Table 3.13-3**.

Table 3.13-3. Applicable City of Signal Hill General Plan Goals and Policies

Element	Goal	Policy	Applicability
Noise	Goal 1: Protect the health, safety, and welfare of people living and working within the city from adverse noise impacts.	Policy 1.a: The City will consider the severity of noise exposure in the community planning process to prevent or minimize noise impacts to existing and proposed land uses. Policy 1.d: The City will inform those living and working within the city of the effects of noise pollution and will cooperate with all levels of government to reduce or minimize impacts. Policy 1.e: Require noise mitigation to ensure that noise-sensitive land uses are not exposed to noise levels of greater than 45 dB in habitable rooms and 65 dB in outdoor living areas. Policy 1.f: Where needed, the City will encourage the use of noise mitigation methods that minimize visual impacts and maintain necessary access.	The Project would be subject to City of Signal Hill regulations and applicable noise limits.

Source: City of Signal Hill 2009

In addition to the goals and policies above, the Noise Element of the General Plan also outlines general standards for assessing compatibility of various land use types with a range of noise levels. Specifically, Implementation Program – Number 16 indicates that the City of Signal Hill should "require an acoustical analysis report where the introduction or addition of a new noise source has the potential to result in exterior noise levels exceeding 60 dB CNEL at a noise-sensitive location. The report must show how noise mitigation measures have been incorporated into the design of the new noise source to reduce interior noise levels at noise-sensitive locations to 45 dB CNEL" (City of Signal Hill 2009). **Table 3.13-4** was also taken from the General Plan and summarizes noise level compatibility criteria for various land uses.

Table 3.13-4. Signal Hill General Plan – Noise Compatibility Criteria by Land Use

Land Use Type	Interior/Exterior	Compatibility Criteria
Residential	Exterior	Outdoor living areas must be mitigated to 65 dB CNEL or less.
Residential	Interior	Habitable rooms must be mitigated to 45 dB CNEL or less.
Other Noise-Sensitive Uses	Exterior	Same as residential criterion.
Other Noise-Sensitive Uses	Interior	Same as residential criterion.
Commercial	Exterior	A noise level of 70 dB CNEL or less, or one that does not interfere with normal business activity.
Industrial	Exterior	A noise level of 75 dB CNEL or less, or one that does not interfere with normal business activity.

Source: City of Signal Hill 2009

3.13.2.3.2 City of Signal Hill Municipal Code

The City of Signal Hill – Municipal Code, specifically Title 20 (Zoning), Section 20.39.130 requires that development within SP-19 General Industrial Specific Plan area comply with the requirements of Title 9 (Public Peace, Morals and Welfare) which contains various provisions that regulate both construction and operational noise from stationary and mobile sources. Applicable Signal Hill – Municipal Code noise and vibration standards and related information/policies are summarized below.

- Title 9 – Public Peace, Morals and Welfare, Chapter 9.16 (Noise)
  - 9.16.020 – Definitions. The following terms used in this chapter, unless the context clearly indicates otherwise, shall have the respective meanings set forth in this section:
- A. "Ambient noise" means the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. For the purpose of this chapter, "ambient noise level" is the level obtained when the noise level is averaged over a period of fifteen minutes without inclusion of noise from isolated identifiable sources, at the location and time of day near that at which a comparison is to be made.
- B. "Ambient noise level" as referred to in this chapter, means the higher of the following:
- 1. Actual measured ambient noise level; or
- 2. Presumed ambient noise level as determined from the following chart:

Zone	Night	Day
	(10 p.m. to 7 a.m.)	(7 a.m. to 10 p.m.)
Residential	50	60
Commercial	60	65
Industrial	70	70

  - 9.16.030 – Noise standards.

- A. Notwithstanding any other provision of this chapter, and in addition thereto, it is unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness in the area.
  - 9.16.060 – Machinery and equipment other than that required for servicing, redrilling and reworking of existing oil wells.
- A. It is unlawful for any person to operate any machinery, equipment, compressor, pump, generator, fan, air conditioning apparatus, or similar mechanical device, or provide boarding or daycare to animals in an enclosed building (kennel) in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than five decibels.
- B. This section shall not prevent the normal operation, repair, or maintenance of household gardening equipment and hobby shop equipment or the servicing, redrilling and reworking of oil wells.

3.13.3 Impact Assessment

3.13.3.1 Methodology

The Project operation noise levels were estimated using the computer noise propagation model SoundPLAN Essential (version 5.1), which calculates noise impacts taking into account terrain features including relative elevations of noise sources, receivers, and intervening objects, ground effects due to areas of pavement and unpaved ground, and atmospheric effects on sound propagation. The following assumptions and parameters are included in the SoundPLAN supported noise source assessment:

- Ground effect acoustical absorption coefficient equal to 0.0, which represents the acoustically reflective “hard” surface;
- Reflection order of 1, which allows for a single reflection of sound paths on encountered structural surfaces such as buildings and structures; and
- Calm meteorological conditions (i.e., no wind) with 70 degrees Fahrenheit and 83% relative humidity.

Noise impacts associated with the proposed Project would be primarily as a result of increased traffic noise levels on surrounding roadways and minor increase in off-road equipment (i.e., loaders) use onsite. Off-site traffic noise as a result of increasing the Facility’s maximum permitted throughput by an additional 1,000 tpd was modeled using the estimated vehicle trips associated with expanded operations presented above in **Table 2.5-1 of Section 2.5.1**. For a conservative analysis, collector trucks, transfer trucks, and self-haul vehicles are input into the model as trucks, with employee vehicles input as passenger cars. In addition, the maximum daytime hourly trip rate of 50 vehicles (i.e., roundtrips) is assumed for all daytime hours (7 a.m. to 10 p.m.), and maximum nighttime trip rate of 30 vehicles (i.e., roundtrips) is assumed for all nighttime hours (10 p.m. to 7 a.m.) (refer to **Table 3.14-1** provided in **Section 3.14** below for hourly trip rate assumptions). Noise receivers were modeled at 50 feet from the roadway centerline. The greatest noise impacts would be concentrated at the entrance and exit routes to the Facility with maximum traffic rates along California Avenue, 28th Street, and E. Patterson Street.

Outside of this area, vehicle trips would be distributed and diluted over a relatively wide area (100 square miles, or greater). Accordingly, onsite and offsite noise localized to the area surrounding the Project site were considered in the analysis of noise impacts on nearby sensitive receptors. Specifically, noise levels increase by 3 dBA when the number of similar noise sources double. The increase in truck trips and worker vehicle trips are not anticipated to double the amount of traffic that currently exist in the greater surrounding are. As such, the increase in trucks and worker vehicles in the surrounding roadways is not anticipated to incrementally increase noise levels in the surrounding area by 3 dBA or more and are not analyzed further herein.

For off-road equipment detailed in **Section 2.5.2** above, the model conservatively assumes that the equipment could be used anywhere within the exterior boundary of the Facility, although in reality the transfer vehicle loading would only occur in the designated loading areas.

3.13.3.2 Impact Discussion

NOI (a). Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The FEIR determined the long-term impact of the Project would be less than significant; no mitigation was proposed. Based on the types and number of off-road equipment and vehicle types and trip rates, Project-related noise is propagated to the nearest sensitive receptors to estimate the maximum change in daytime and nighttime noise levels resulting from the proposed Project as summarized in **Table 3.13-5** and **Table 3.13-6**, respectively**.** Daytime noise levels associated with the Project are illustrated in **Figure 3.13-1** with nighttime noise illustrated in **Figure 3.13-2**. As shown in **Tables 3.13-5** and **3.13-6** and **Figures 3.13-1** and **3.13-2**, Project-related on-road and off-road activities would not increase noise levels above the presumed ambient noise level of 70 dBA during daytime and nighttime hours for industrial areas or the presumed ambient noise levels for commercial areas of 65 dBA during the day and 60 dBA during nighttime hours. Similarly, noise levels propagated to the nearest residential receptors would be below the respective presumed daytime and nighttime noise levels of 60 dBA and 50 dBA, respectively.

Table 3.13-5. Modeled Maximum Project Daytime Sound Levels (L_{eq}, dBA).

Sensitive Receptor ID	Sensitive Receptor Description	Modeled Daytime Project Noise Level[1] (dBA L_{eq})	Presumed Ambient Noise Level (Day)	Noise Standard[2] (Day)	Exceed Standard?
S1	K Wellness Holistic Health Spa (701 E. 28th St.)	49.2	65	70	No
S2	Memorial Orthopedic Surgical Group (2760 Atlantic Ave.)	49.4	65	70	No
S3	Atlantic Memorial Healthcare Center (2750 Atlantic Ave.)	48.2	65	70	No
S4	Single-Family Residences (Lime Ave.)	45.7	60	70	No
S5	Cal Institute of EMT Training Institute (2669 Myrtle Ave.)	51.6	65	70	No
S6	Commercial Building (901 E. 27th St.)	52.5	65	70	No
S7	Undershirt Inc. (931 E. 27th St.)	56.5	65	70	No
S8	Long Beach Islamic Center (995 E. 27th St.)	60.7	65	70	No
S9	EDCO Customer Service Office (950 E. 27th St.)	55.1	65	70	No
S10	Sunnyside Cemetery (1095 Ea. Willow St.)	62.4	65	70	No
S11	Commercial Building (999 E. Willow St.)	64.7	65	70	No

Sensitive Receptor ID	Sensitive Receptor Description	Modeled Daytime Project Noise Level[1] (dBA L_{eq})	Presumed Ambient Noise Level (Day)	Noise Standard[2] (Day)	Exceed Standard?
S12	Willow Springs Park (2745 Orange Ave.)	48.4	65	70	No

Notes:

1. Modeled noise level is associated with Project-related daytime mobile sources and off-road equipment. Modeled Project noise levels less than ambient would not be expected to increase noise levels at the modeled receptors.
2. The noise standard for construction activities as provided in the City of Signal Hill Municipal Code Section 9.16.060 prohibits operation of machinery, equipment, etc. that would create noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than 5 dB.

Table 3.13-6. Modeled Maximum Project Nighttime Sound Levels (L_{eq}, dBA).

Sensitive Receptor ID	Sensitive Receptor Description	Modeled Nighttime Project Noise Level[1] (dBA L_{eq})	Presumed Ambient Noise Level (Night)	Noise Standard[2] (Night)	Exceed Standard?
S1	K Wellness Holistic Health Spa (701 E. 28th St.)	44.6	60	65	No
S2	Memorial Orthopedic Surgical Group (2760 Atlantic Ave.)	44.7	60	65	No
S3	Atlantic Memorial Healthcare Center (2750 Atlantic Ave.)	43.5	60	65	No
S4	Single-Family Residences (Lime Ave.)	40.9	60	60	No
S5	Cal Institute of EMT Training Institute (2669 Myrtle Ave.)	46.9	60	65	No
S6	Commercial Building (901 E. 27th St.)	47.7	60	65	No
S7	Undershirt Inc. (931 E. 27th St.)	51.8	60	65	No
S8	Long Beach Islamic Center (995 E. 27th St.)	56.0	60	65	No
S9	EDCO Customer Service Office (950 E. 27th St.)	50.3	60	65	No
S10	Sunnyside Cemetery (1095 Ea. Willow St.)	57.7	60	65	No
S11	Commercial Building (999 E. Willow St.)	59.9	60	65	No
S12	Willow Springs Park (2745 Orange Ave.)	43.7	60	65	No

Notes:

1. Modeled noise level is associated with Project-related nighttime mobile sources and off-road equipment. Modeled Project noise levels less than ambient would not be expected to increase noise levels at the modeled receptors.
2. The noise standard for construction activities as provided in the City of Signal Hill Municipal Code Section 9.16.060 prohibits operation of machinery, equipment, etc. that would create noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than 5 dB.

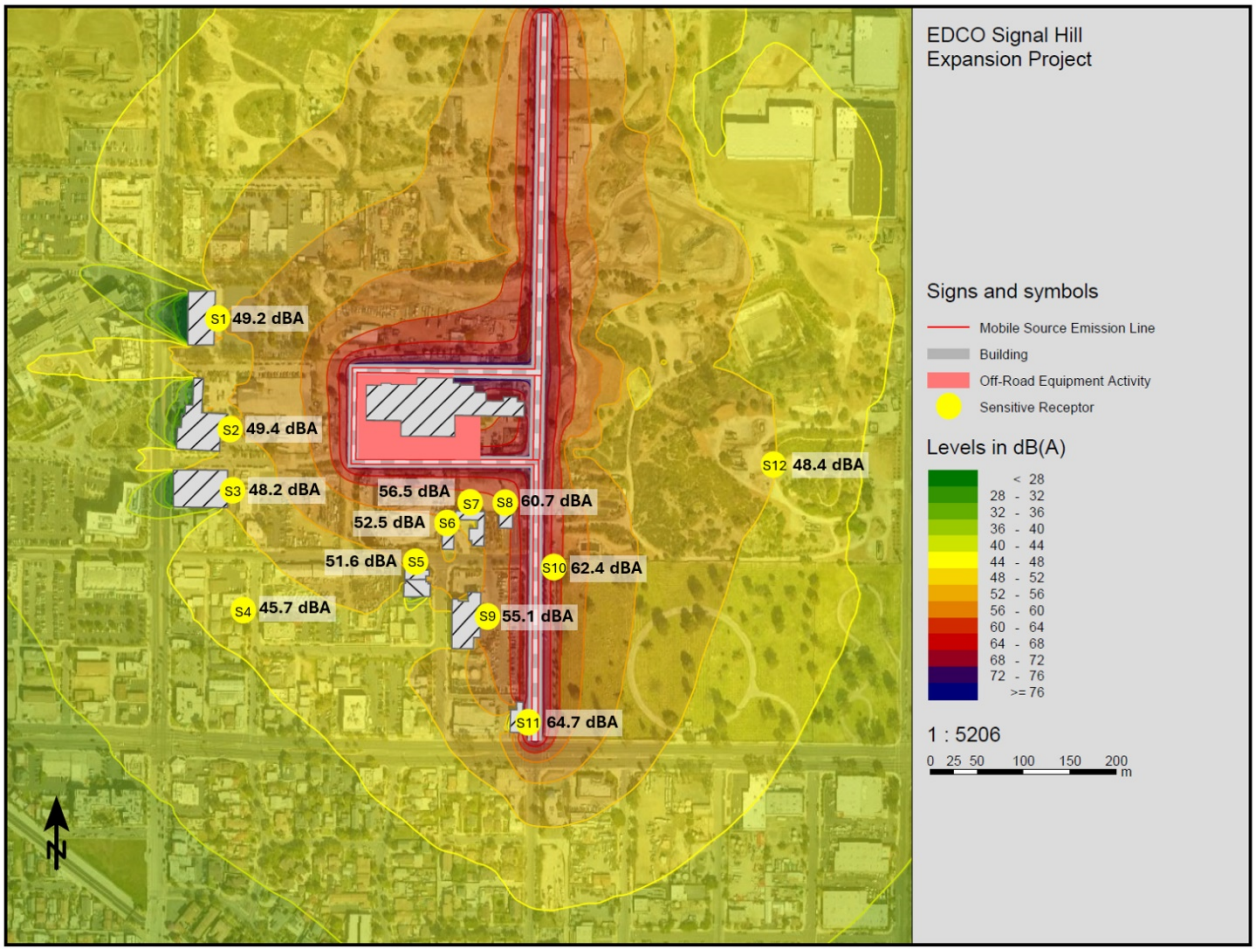


Figure 3.13-1. Modeled Project Daytime Noise

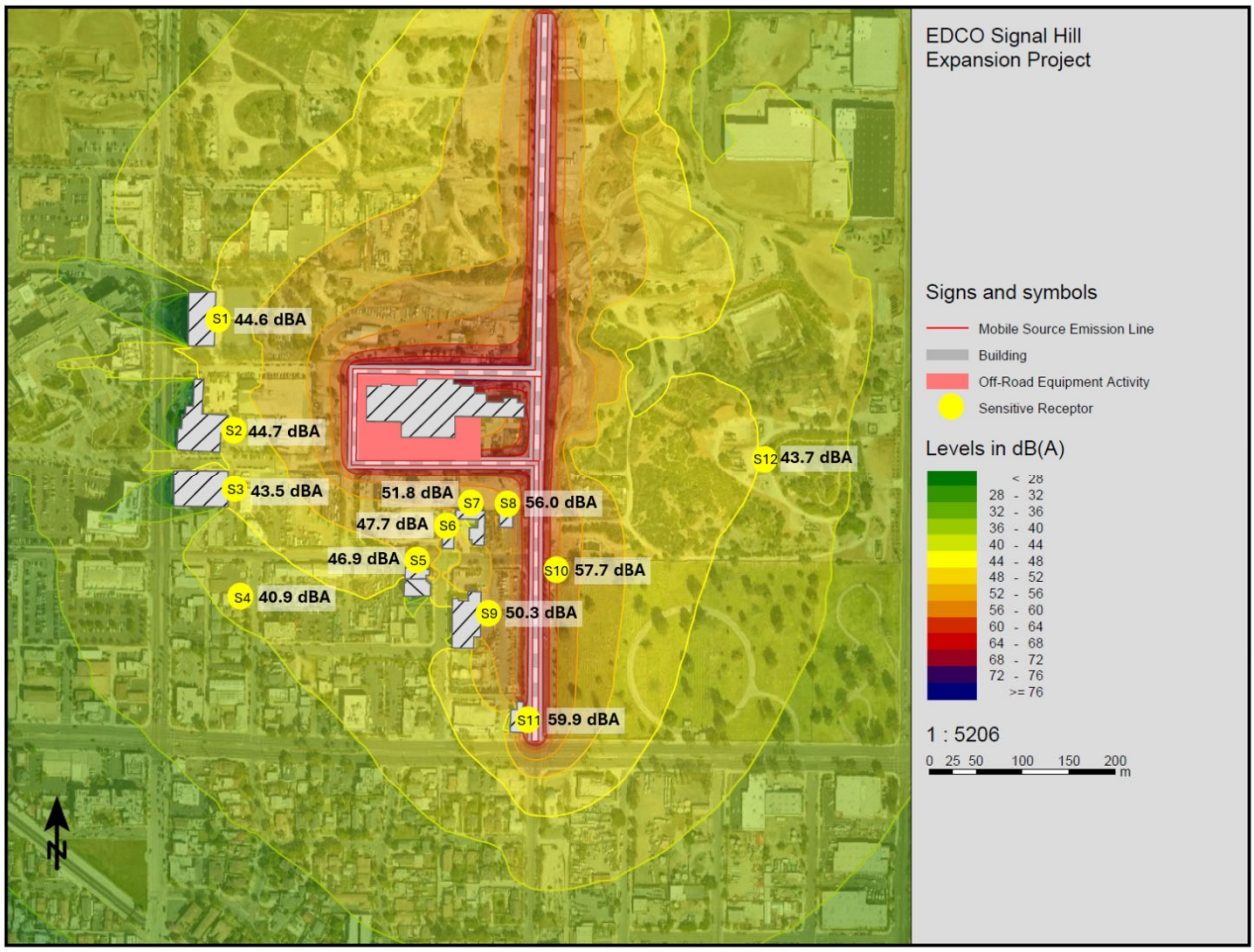


Figure 3.13-2. Modeled Project Nighttime Noise

Based on the SoundPLAN modeling of the Project, anticipated Project-related noise levels would not exceed local thresholds nor would it result in an increase in ambient noise levels from existing conditions. Thus, the Project would comply with local guidelines set forth in the City of Signal Hill's Noise Element and Noise Ordinance. Therefore, the Project would not generate significant noise levels that would disturb noise-sensitive land uses (i.e., residential or commercial) in the vicinity. The impacts would be less than significant. Therefore there would be no new significant impacts, or more severe impacts, compared to the 2009 FEIR.

NOI (b). Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

The FIER determined the long-term impact to be less than significant; no mitigation was proposed. No new impacts would occur as a result and are therefore consistent with a determination of less than significant. The Project would result in additional heavy vehicle trips on local roadways accessing the Project site. Rubber-tire heavy vehicles traveling on roadways typically will not produce perceptible vibration at adjacent buildings. Roadways providing access to the Project are located at a distance of at least 20 feet from any offsite residence or any other sensitive receptor structure. The proposed Project would not have any other additional operational sources of vibration. Further, the speed limit on the

adjacent roadways is less than 30 miles per hour and the road surface is in good condition. As trucks enter and exit the site, they would traverse the asphalt drive at very low speeds. As noted in FTA (2018), rubber tires and suspension systems provide vibration isolation, and therefore, it is unusual for ground-borne vibration associated with on-road vehicle movement to be perceptible. Impacts associated with vibration are expected to be less than significant.

NOI (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?

Less than Significant. The FEIR determined the long-term impact of the Project was less than significant; no mitigation was proposed. No new impacts would occur as a result and are therefore consistent with a determination of less than significant. The Project site is located within 2.0 miles of a public airport or public use airport. Specifically, the Long Beach Airport is located approximately 1.0 miles away from the Project site. The Project does not involve creation of new noise-sensitive land uses (i.e., residences). For these reasons, the Project would have a less than significant impact related to airport/airstrip noise levels, with no mitigation required.

3.14 Transportation

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

3.14.1 Environmental Setting

3.14.1.1 Existing Roadway Network

As described in the Signal Hill Circulation Element (City of Signal Hill 2009), Signal Hill is completely surrounded by the City of Long Beach, and its transportation network. **Figure 3.14-1** shows major roadways in Signal Hill.

Note that the City of Signal Hill has long contemplated widening California Street (Collector Street) in the Project Area and removing the barrier on 28th Street (Local Street) and paving it to the west as a through street to Atlantic Avenue. The City of Signal Hill anticipates considering these and other transportation

flow actions as part of the General Plan Circulation Element update, which is anticipated for 2025. If these local roadways are modified in the future as a result of the Circulation Element, the effects in the vicinity of the Facility would be modeled and evaluated at that time. The capacity expansion for the Facility does not require changes to the street pattern or circulation flow at this time.

3.14.1.1.1 Freeways

Freeways are controlled-access, high-speed roadways with grade-separated interchanges. They are intended to carry high volumes of traffic from region to region. The Facility is located about one mile south of Interstate 405 (San Diego Freeway), approximately one mile east of Interstate 710 (Long Beach Freeway)

- **Interstate 710**. The Long Beach Freeway (I-710) runs in the north/south direction, extending from Alhambra to Long Beach. At State Route 91, I-710 provides three lanes in each direction. I-710 is approximately 0.75 miles to the east of the Plan Area. Access to the Project area is provided by ramps at State Route 91, E. Artesia Boulevard and Long Beach Boulevard.
- **Interstate 405.** The San Diego Freeway (I-405) runs in the northwest/southeast direction, extending from the Westside of Los Angeles County to Orange County. At Santa Fe Avenue, I-405 provides five lanes in each direction. Interchanges providing access to the Project area include Santa Fe Avenue and Alameda Street.

3.14.1.1.2 Principal Arterials

Principal Arterials (equivalent to the FHWA's "Other Principal Arterial" classification) are important city and intercommunity routes. Principal Arterials have a minimum 100- to 110-foot right-of-way width with four moving travel lanes and a painted or raised median. Principal Arterials support the heaviest traffic volumes of all the roadway classifications, and can support a maximum Average Daily Trip (ADT) rate of 33,000 vehicles at a LOS D. Principal Arterials in the Project area include:

- **Pacific Coast Highway (PCH; SR-1)** is a six-lane divided roadway from the southern limit of E 19th Street to the limits of Village way to the west spanning the length of the southern City of Signal Hill boundary. The City of Signal Hill General Plan classifies PCH as a Principal Arterial (100 to 110-foot right-of-way). Seven Signal Hill bus stops exist along the PCH. There is a planned Class III bike route (shared use with pedestrian or motor vehicle traffic) spanning the length of the southern boundary of the City of Signal Hill.
- **Orange Avenue** is a two to four-lane divided roadway north of Hill Street and a two to four-lane undivided roadway south of Hill Street. Orange Avenue is classified as a Principal Arterial (100-110 foot right-of-way) in the City of Signal Hill General Plan. On-street parking is prohibited north of Willow Street. On-street parking is generally permitted on the southbound side between Willow Street and Burnett Street and generally permitted on both sides south of Burnett Street. Dedicated Class II (marked/on-street) bicycle lanes are provided south of Pacific Coast Highway. Sidewalks are generally provided on both sides of the roadway except between Spring Street and Willow Street.
- **Spring Street** is a six lane divided roadway in the Project vicinity. Willow Street is classified as a Principal Arterial (100-110 foot right-of-way) roadway in the City of Signal Hill General Plan. On-

street parking is prohibited; there are no dedicated bicycle lanes west of Orange Avenue. Sidewalks are currently provided on both sides of the roadway within the study area.

- **Willow Street** is a four-lane divided roadway in the Project vicinity. Willow Street is classified as a Principal Arterial (100-110 foot right-of-way) roadway in the City of Signal Hill General Plan. On-street parking is prohibited; there are no dedicated bicycle lanes in the Project vicinity. Sidewalks are currently provided on both sides of the roadway within the general Project area except for a portion along of the westbound approach at Walnut Avenue.
- **Atlantic Avenue** is at the City of Signal Hill boundary, within the City of Long Beach and is classified as a "Major Avenue" in the City of Long Beach General Plan (80-100 foot right-of-way). On-street parking is generally permitted on the southbound side between Willow Street and Spring Street. Sidwalks are currently provided on both sides of the roadway between 29th Street and Willow Street and intermittent above 29th Street.

3.14.1.1.3 Minor Arterial

Minor Arterials serve traffic traveling to local destinations, tying together the various parts of the City of Signal Hill and connecting it to nearby areas. Minor Arterials have a minimum 80-foot right-of-way width with four travel lanes and a painted median. These roadways support a maximum ADT of 12,500 vehicles at an LOS D. There are no Minor Arterials in the Project area.

3.14.1.1.4 Collector Streets

Collector Streets collect local traffic from residential neighborhoods and commercial and industrial areas and feed the traffic to Minor and Principal Arterials. Collector Streets have a 60- to 70-foot right-of-way with two travel lanes and two parking lanes, where parking is feasible. Collector Streets with 70-foot rights-of-way may also include a painted median. This painted median increases roadway safety and improves efficiency by limiting the number of left-turning cars that queue in travel lanes; for that reason, the 70-foot right-of-way is preferred. However, where physical or environmental factors limit roadway width, a 60-foot right-of-way is permissible. Collector Streets generally carry fewer vehicles than Minor Arterials. Collector Streets in the Project area include:

- **California Avenue** is a two-lane roadway oriented in the north-south direction. The roadway lies within the City of Signal Hill adjacent to the subject area and is designated in the City of Signal Hill Circulation Element as a Collector Street with a 70-foot right-of-way requirement. Parking is not permitted on either side of this roadway within the vicinity of the Project.

3.14.1.1.5 Local Streets

The Local Street classification includes all roadways and streets not otherwise classified. These are generally 60-foot-wide rights-of-way with two travel lanes and two parking lanes where feasible, but there are several variations in roadway width. These variations are found in both older neighborhoods and in newer areas, particularly those with private streets. Local Streets are designed to serve individual properties and provide access from residential neighborhoods to Collector Streets. Local Streets include private streets owned and maintained by homeowners' associations. Local Streets carry the lowest traffic volumes of all streets in the city of Signal Hill; most traffic on these streets is accessing local destinations, rather than passing through. Through the specific plan process, the City of Signal Hill has

approved a variety of private street configurations, including rights-of-way less than 60 feet wide. 28th Street and Patterson Street provide access to the Project site. Currently, as allowed by Condition 18 of the Facility's current CUP, occasional queuing of transfer and collection trucks takes place on 28th Street. As detailed in **Table 2.1-3** provided in **Section 2.1.6** above, transfer trucks currently arrive between the hours of 3:00 AM and 4:00 PM.

3.14.1.2 Existing Designated Truck Routes

The City of Signal Hill has designated Truck Routes, intended to keep large trucks (i.e., weighing more than three tons) off local residential streets. Trucks must remain on the routes when driving through the City of Signal Hill, although drivers may leave designated truck routes for deliveries or pick-ups. Local truck routes designated by the City of Signal Hill are shown in **Figure 3.14-2**.

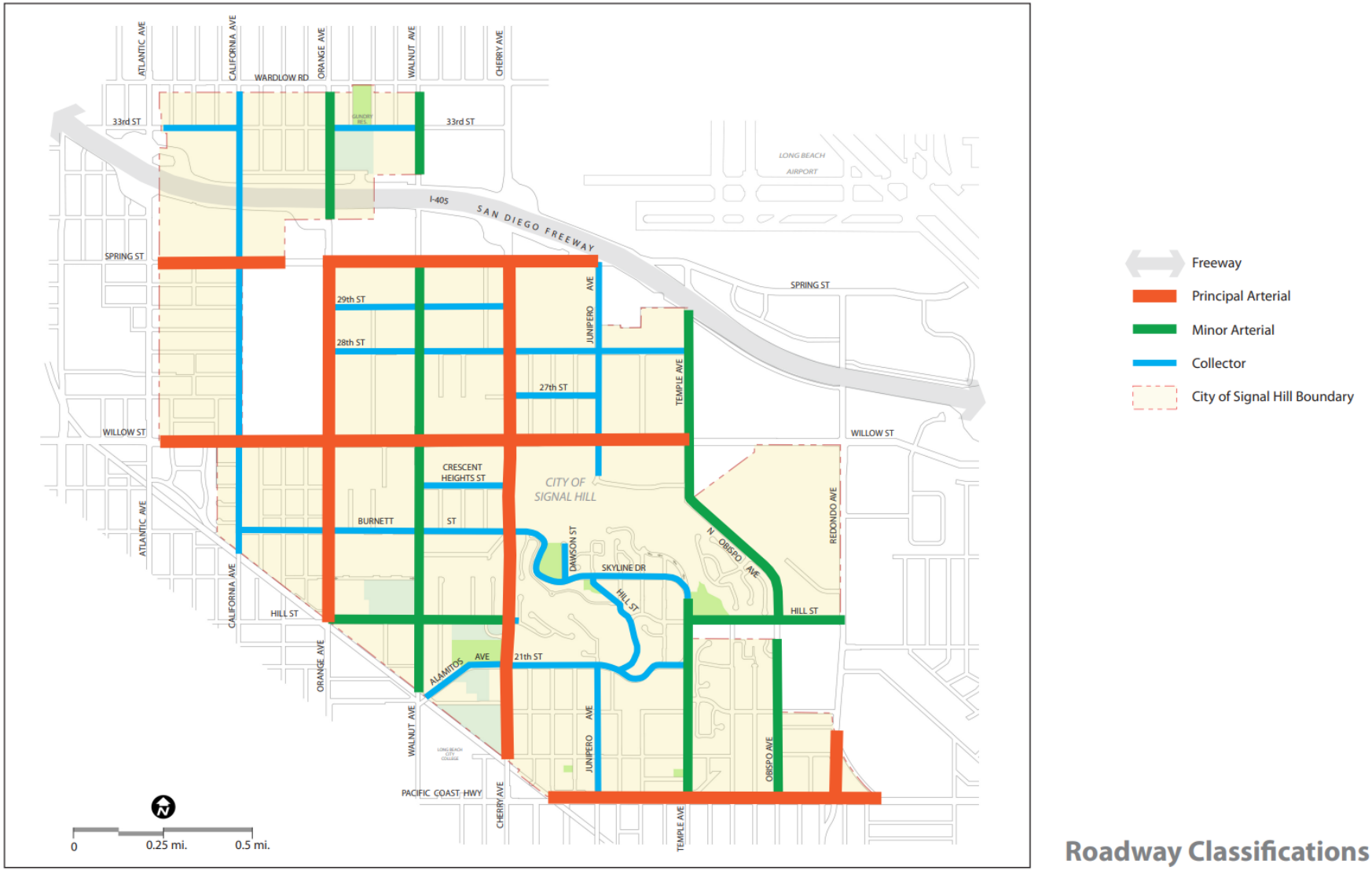


Figure 3.14-1. Regional Network in Project Area

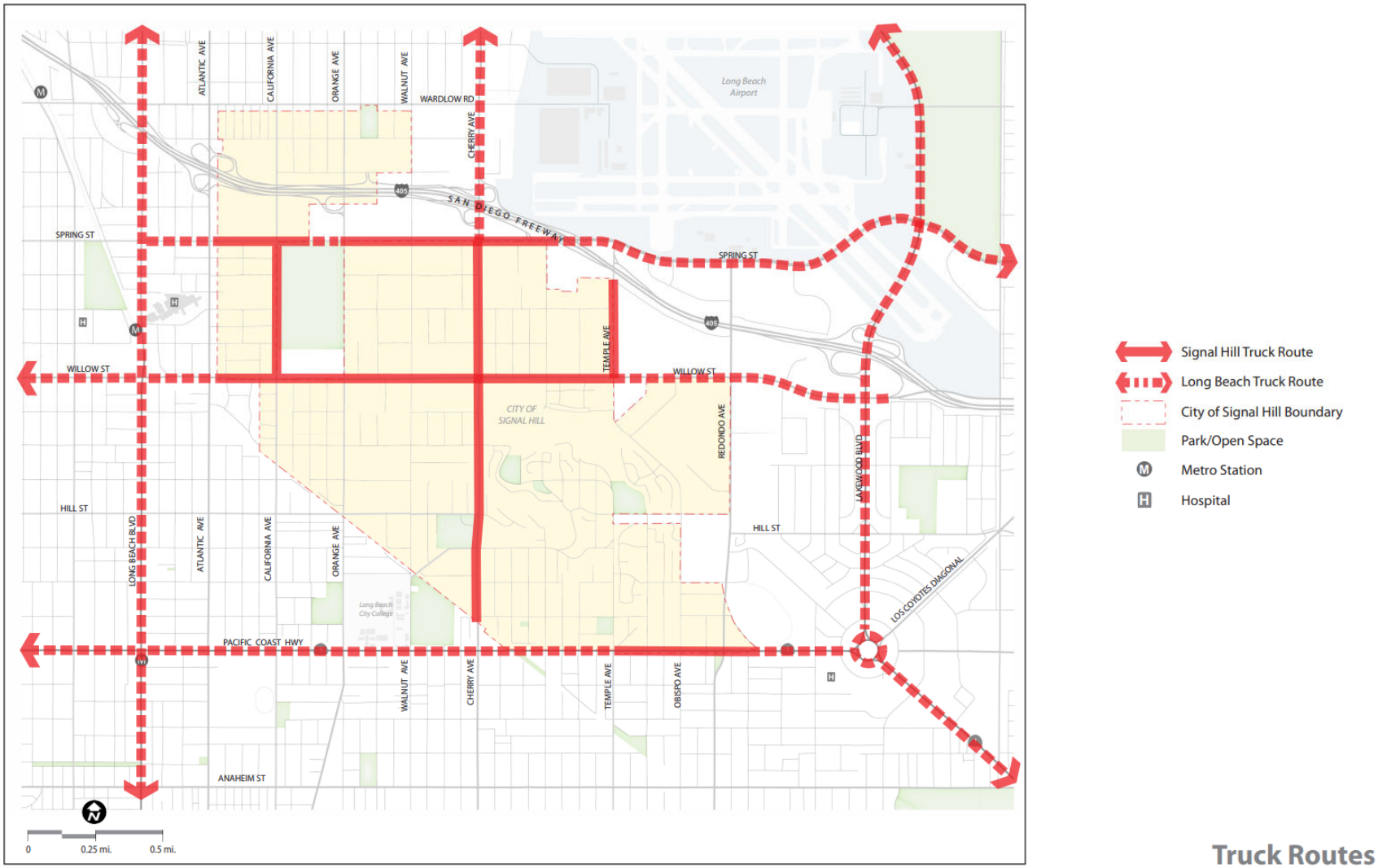


Figure 3.14-2. Designated Truck Routes

3.14.1.3 Transit Network

Services provided by Long Beach Transit and Metro operate within or in the Project area; additional bus lines are accessible through the nearby Long Beach Transit Mall. Long Beach Transit is the primary public transportation provider to Signal Hill. It is a municipal transit agency operated on behalf of the City of Long Beach by a nonprofit corporation, the Long Beach Public Transportation Company. In 2007, Long Beach Transit operated a total of 249 buses on 38 bus routes, providing over 26.6 million passenger trips. Service is provided from approximately 4:30 am to 1:30 am, seven days per week. Long Beach Transit is currently in the process of upgrading its bus stops with satellite-controlled bus tracking technology known as "TranSmart." TranSmart-equipped stops provide real-time updates on routes and arrival times. Currently, only the stop at the southwest corner of Cherry Avenue and Willow Street has been upgraded; no schedule for improvements to the remaining stops within Signal Hill is currently available. Several Long Beach Transit routes serve the Project site, including: Routes 71/72 along Orange Avenue, Routes 21/22 along Cherry Avenue, and Route 102/104 along Willow Street.

3.14.1.4 Existing Bikeway Network

Prior to the update of the City of Signal Hill's General Plan Circulation Element there were no bikeways designated within the City of Signal Hill. With the update in 2009, approximately 5.5 miles of bikeways along a number of routes are planned. These bikeways fall into three classes, as defined by Caltrans:

- Class I (Bike Path) Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized.
- Class II (Bike Lane) Provides a striped land for one-way bike travel on a street or highway.
- Class III (Bike Route) Provides for shared use with pedestrian or motor vehicle traffic.

Bikeways provide and encourage an alternative to the use of automobiles. Bikeways are intended to link living, working, shopping, educational, and recreational locations. The bikeways currently proposed serve a number of purposes:

- East-west routes provide access to destinations such as light rail stations, schools, CSULB, Long Beach City College, Long Beach Memorial Medical Center, and shopping centers along Atlantic and Long Beach Boulevards. Recently-widened Spring Street offers adequate space for an on-street bike lane along much of its right-of-way in the city of Signal Hill.
- North-south routes provide access to destinations such as schools, commercial centers along Pacific Coast Highway, regional bus lines operating on 7th Street, Downtown Long Beach, beaches, civic and arts facilities, and hospitals.
- The route along Temple Street/Skyline Drive/Burnett Street provides panoramic skyline views and is heavily utilized by pedestrians.
- The route along the former Pacific Electric Railway right-of-way provides an off-street bikeway that shortens the distance for travel in a northwest-southeast direction, providing direct access from the Willow Street Blue Line Station to Long Beach City College. This bikeway is located in the city of Long Beach, along its border with Signal Hill.

The Circulation Element recommended that new bikeways should be considered by the City of Signal Hill, particularly when they would connect with existing or proposed bikeways in the city of Long Beach. Traffic volumes and characteristics along potential routes must be considered, along with traffic safety and grade issues.

3.14.2 Regulatory Setting

The U.S. Department of Transportation is the primary federal department concerned with transportation regulation and consists of multiple agencies, including the FHWA, FTA, and Federal Motor Carrier Safety Administration. Federal transportation regulations are primarily found in CFR 23 and 49. Caltrans is the primary state agency responsible for implementing regulations on the state's highways and freeways. State regulations are primarily found in California's Streets and Highways Code and Vehicle Code and regulate many aspects of transportation such as truck operation and routes.

3.14.2.1 State

3.14.2.1.1 Senate Bill 743

The Office of Planning and Research published its proposal for the comprehensive updates to the CEQA Guidelines in November 2017 which included proposed updates related to analyzing transportation impacts pursuant to Senate Bill 743. These updates indicated that VMT be the primary metric used to identify transportation impacts. In December of 2018, the Office of Planning and Research published the most recent version of the Technical Advisory on Evaluating Transportation Impacts (December 2018), which provides guidance for VMT analysis. The Office of Administrative Law approved the updated CEQA Guidelines and lead agencies were required to implement the updated guidelines by July 1, 2020. The City of Signal Hill has not yet adopted specific VMT guidance or significance threshold for evaluating transportation impacts in CEQA Guidelines Section 15064.3 in response to SB 743.

3.14.2.2 Local

3.14.2.2.1 City of Signal Hill General Plan

The City of Signal Hill Circulation of the General Plan was last updated in December 2009. Goals and policies relevant to the Modified Project can be found in **Table 3.14-1** below:

Table 3.14-1. City of Signal Hill General Plan.

Element	Goal	Policy	Applicability
Land Use Element	Goal 1: Ensure that new development results in the preservation and enhancement of the City's circulation system.	Policy 1.a: Ensure that necessary circulation system enhancements and expansions occur concurrently with new development and are consistent with the Los Angeles County Congestion Management Plan (CMP.)	
		Policy 1.b: Require that new development include circulation and utility system improvements,	

Element	Goal	Policy	Applicability
		including dedication of land for widening of roadways and pedestrian and bicycle facilities, where appropriate, and construction of new public works facilities reasonably related to the impacts of the development and intended use on the existing systems.	
		Policy 1.c: Develop and improve the circulation and utility systems by identifying and establishing a range of funding sources.	
		Policy 1.d: Limit growth and development when the impacts of growth cannot be mitigated or will overtax the existing systems.	
	Goal 5: Permit safe and efficient goods movement to support regional commerce and industry, while minimizing undesirable impacts on Signal Hill residents	– Policy 5.b: Identify appropriate routes for trucks serving industrial, commercial, and mixed-use activity areas, discouraging truck traffic from entering residential neighborhoods	

3.14.3 Impact Assessment

TRA (a). Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant. The FEIR made a determination of no impact for conflicts with alternative transportation facilities, routes, plans, or programs. This addendum did not identify any new or greater impacts than evaluated under the 2009 FEIR, and therefore, the Project-level impact is less than significant. A variety of different types of vehicles currently utilize the Facility, but they are primarily broken into three categories: collection trucks, transfer tractor/trailers and self-haul/employee vehicles. The Facility is currently permitted for a maximum daily capacity of 1,500 tpd. Using this baseline number, the following assumptions are used to generate the type and number of vehicles anticipated to enter the facility:

- 1,500 tpd of municipal solid waste and recyclable materials.
- Solid waste collection trucks have an average capacity of 7 tons.

- Residual waste transfer trucks (including recyclable materials) have an average capacity of 22 tons.
- Self-haul vehicles have an average of 1 ton.

While the Facility is designed for a maximum daily capacity of 6,336 tpd over a 24-hour period, the FEIR considered a maximum of 1,500 tpd. Using the permitted capacity of 1,500 tpd as a baseline number, the estimated number of commercial trucks accessing the Facility are approximately 239 (171 collection vehicles, 68 transfer tractor trailers) and 350 self-haul/employee passenger vehicles per day. The estimated number of trips required for a permitted capacity of 2,500 tpd is assumed to increase linearly in relation to the baseline number of vehicles accessing the site. Accordingly, **Table 2.5-1** provided in **Section 2.5.1** summarizes the assumed existing trips, estimated trips, and change in trips from existing conditions under the Project.

The peak hour trip generation for the Project summarized in **Table 3.14-1** is based on the hourly trip generation rates for existing operations with the trips associated with expanded operations proposed under the Project scaled proportionately for the processing of the additional 1,000 tpd.

Table 3.14-1. Hourly Distribution of Vehicles (Project Operations)

Time	Collection Trucks	Self-Haul Vehicles	Transfer Trucks	Staff Vehicles	Total Vehicles
10:00-11:00 PM	0	0	1	0	1
11:00-12:00 PM	0	0	1	0	1
12:00-1:00 AM	0	0	1	0	1
1:00-2:00 AM	0	0	1	0	1
2:00-3:00 AM	0	0	1	0	1
3:00-4:00 AM	0	0	3	2	5
4:00-5:00 AM	3	0	3	2	8
5:00-6:00 AM	6	0	3	21	30
6:00-7:00 AM	6	7	3	0	16
7:00-8:00 AM	7	10	2	0	19
8:00-9:00 AM	6	17	1	0	24
9:00-10:00 AM	10	20	2	0	32
10:00-11:00 AM	10	23	3	0	36
11:00-12:00 AM	10	30	3	0	43
12:00-1:00 PM	10	20	3	0	33
1:00-2:00 PM	10	23	3	2	38
2:00-3:00 PM	10	20	3	2	35
3:00-4:00 PM	10	17	2	21	50
4:00-5:00 PM	6	13	1	0	20
5:00-6:00 PM	6	0	1	0	7
6:00-7:00 PM	4	0	1	0	5
7:00-8:00 PM	0	0	1	0	1
8:00-9:00 PM	0	0	1	0	1
9:00-10:00 PM	0	0	1	0	1
TOTAL	**114**	**200**	**45**	**50**	**408**

Source: EDCO Signal Hill 2024
Notes: Shading indicates peak traffic hours.

For an analysis of peak hour trips, a Passenger Car Equivalence (PCE) factor of 2.0 is applied to each truck trip to account for the effects of these heavy vehicles within the traffic stream on flat terrain. **Table 3.14-2** summarizes the Project-related trip generation with the PCE factor.

Table 3.14-2. Project Peak Hour PCE Trip Generation Summary

Vehicle Type	PCE	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Collection Trucks	2.0	12	12	24	12	12	24
Transfer Trucks	2.0	2	2	4	2	2	4
Self-Hauler	1.0	17	17	34	13	13	26
Employee	1.0	0	0	0	0	0	0
TOTAL		**31**	**31**	**62**	**27**	**27**	**54**

Based on the off-site circulation routes as required by the CUP (refer to **Figure 2.4-1** and **Figure 2.4-2** in **Section 2.4** above), ten intersections have been included in the traffic impact analysis for the AM and PM peak hours. These intersections are summarized in **Table 3.14-3** and illustrated in **Figure 3.14-3**.

Table 3.14-3. Key Intersections and Existing (Year 2018) Peak Hour LOS

Key Intersection	Time Period	Existing LOS
1. Atlantic Avenue and I-405 Northbound	AM	A
	PM	C
2. Atlantic Avenue and I-405 Southbound	AM	A
	PM	A
3. Atlantic Avenue and Spring Street	AM	C
	PM	D
4. California Avenue and Spring Street	AM	A
	PM	C
5. California Avenue and Willow Street	AM	B
	PM	A
6. Orange Avenue and 32nd Street	AM	C
	PM	D
7. I-405 Northbound and 32nd Street	AM	B
	PM	B
8. Orange Avenue and I-405 Southbound	AM	E
	PM	F
9. Orange Avenue and Spring Street	AM	D
	PM	D
10. Cherry Avenue and Spring Street	AM	B
	PM	C

Source: City of Long Beach 2020a

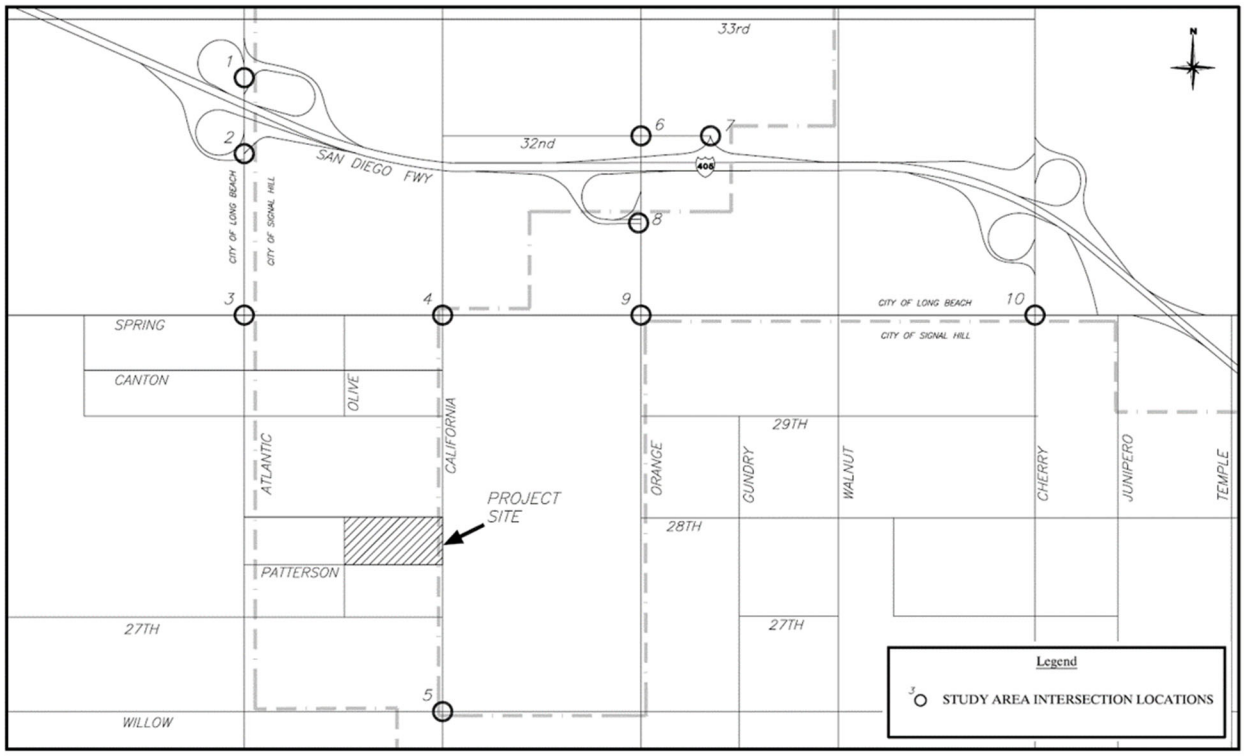


Figure 3.14-3. Study Area Intersection Locations

As noted above, the collection trucks and transfer trucks will be restricted to specific routes with approximately 40 percent of trips oriented towards the I-405 Freeway. **Figure 3.14-4** illustrates the general truck distribution. Self-haul vehicles and employee vehicles will not be restricted to assigned routes and are distributed based on levels and locations of development in relation to the location of the Facility. **Figure 3.14-5** illustrates the general distribution of self-haul vehicles and employees.

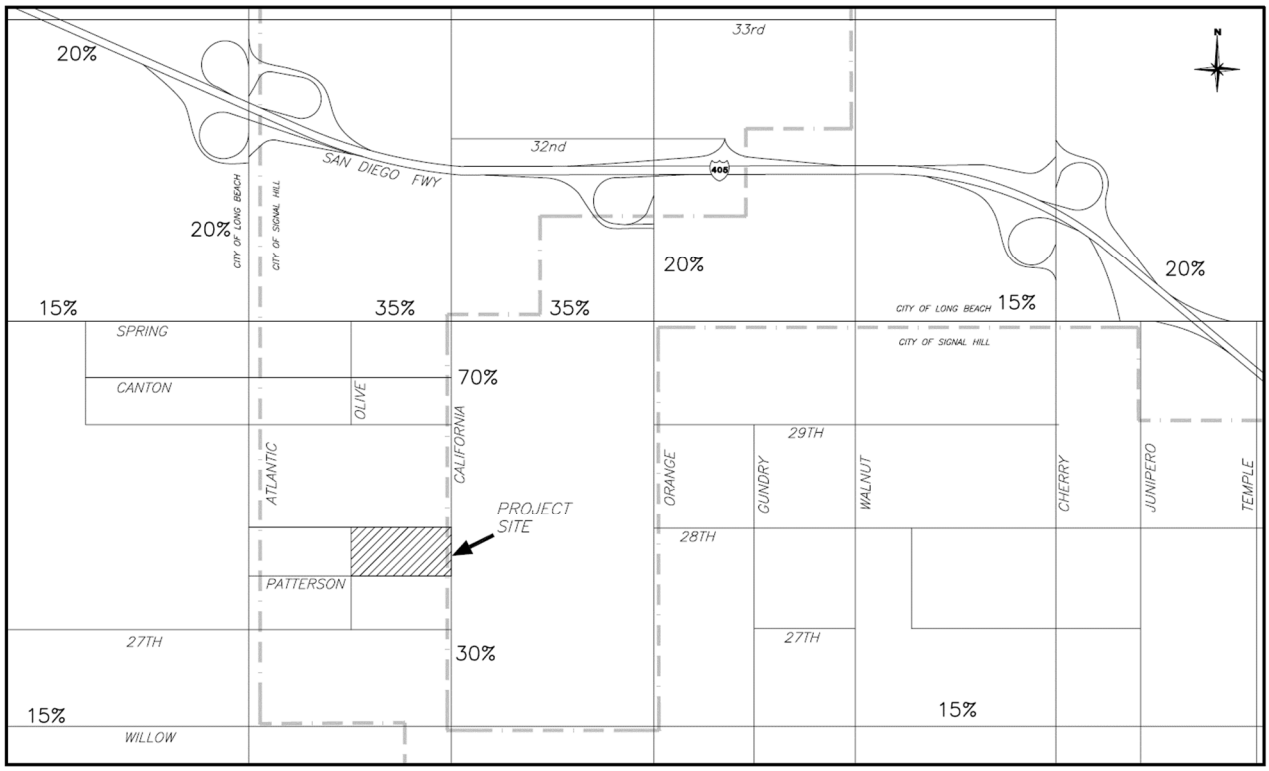


Figure 3.14-4. General Project Trip Distribution - Trucks

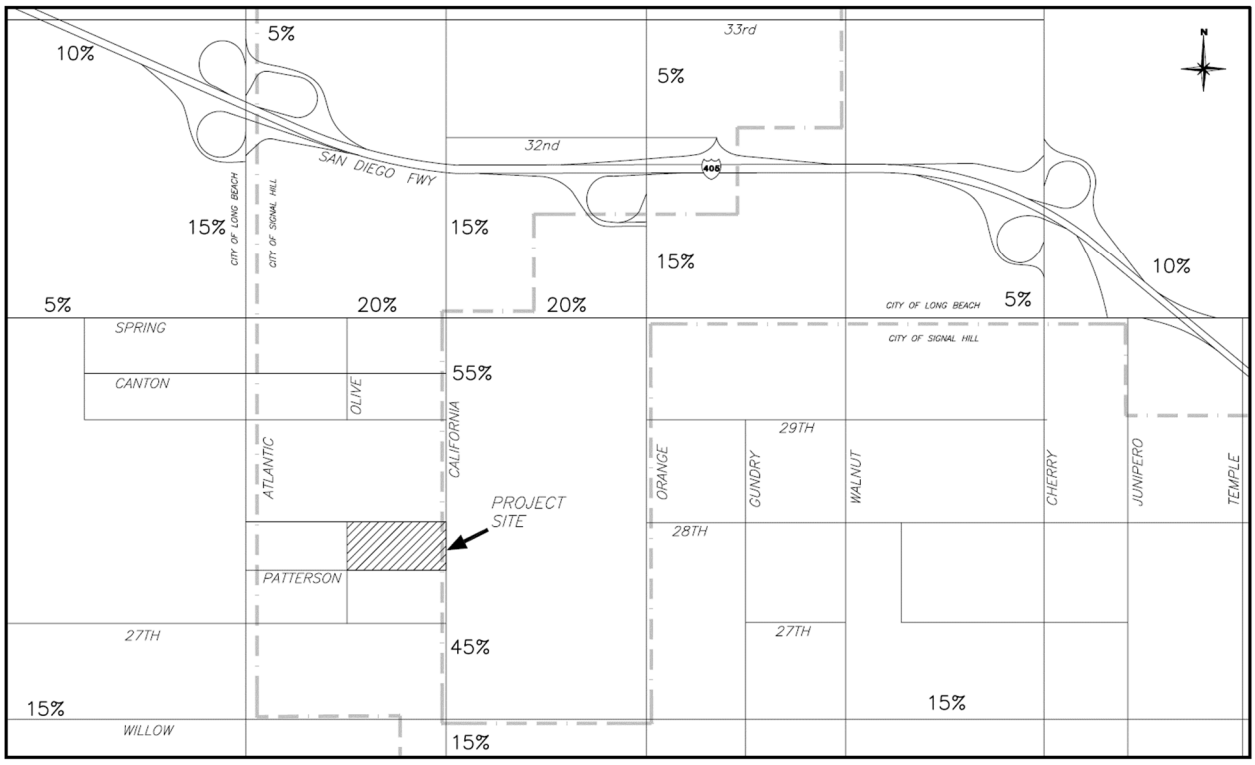


Figure 3.14-5. General Project Trip Distribution – Self-Haul and Employee Vehicles

Assuming the anticipated trip distribution rates illustrated in **Figure 3.14-4** and **Figure 3.14-5**, the maximum number of PCE vehicles at an intersection traveling in any given direction is estimated at 19 PCE vehicles during the AM peak hour (i.e., leaving the site heading north on California Avenue). From the intersection at California Avenue and Spring Street, Project-related PCE vehicle trips are dispersed among the proximate intersections. The most impacted intersection (i.e., most severe congestion with LOS E or F) is identified at Orange Avenue and Spring Street. At this intersection, the maximum number of PCE vehicles traveling in any given direction is estimated at 5 PCE vehicles during AM or PM peak hours. Per City of Long Beach guidelines (2020b), if an intersection operates at LOS E or F without the Project and the Project increases average control delay at the intersection by 2.5 seconds or more, the addition of project traffic would be responsible for LOS deficiencies. Given existing traffic volumes, the limited number of PCE vehicles during peak hour travel times would not be expected to increase the average control delay at any intersection by 2.5 seconds or more or reduce the LOS at key intersections.

Currently, as allowed by Condition 18 of the Facility's current CUP, occasional queuing of transfer and collection trucks takes place on 28th Street. As detailed in **Table 2.1-3** provided in **Section 2.1.6**, transfer trucks currently arrive between the hours of 3:00 AM and 4:00 PM. To reduce the potential of additional queuing as a result of the proposed Project, EDCO will distribute transfer truck arrivals over a full 24-hour day so that no more than 3 additional transfer trucks are expected in any given hour (refer to **Table 3.18-1**). In addition, consistent with existing operations, EDCO would continue to employ spotters to manage truck traffic and further reduce the potential for excessive queuing on 28th Street.

Accordingly, the Project would not involve any transportation improvements or programs that would conflict with adopted policies, plans, or programs supporting alternative transportation. In addition, the proposed Project is consistent with the goals and polices of the City of Signal Hill General Plan Circulation Element. The proposed expansion would not alter the surrounding transportation system, and therefore would not preclude the future establishment or ongoing operation of transit, bicycle, and/or pedestrian facilities. There is no construction proposed. In addition, expansion of operations at the Facility would not result in an increase in traffic such that it would result in LOS deficiencies or result in excessive queuing on local streets or intersections. Thus, considering the existing conditions of the CUP, *impacts would be less than significant.* Therefore, there would be no new significant impacts, or more severe impacts, compared to the 2009 FEIR.

TRA (b). Would the Project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Less than Significant. The purpose of this Vehicle Miles Traveled (VMT) analysis is to evaluate the Project based on Senate Bill 743 (SB 743) requirements consistent with the *Technical Advisory on Evaluating Transportation Impacts In California Environmental Quality Act*, December 2018, prepared by the State of California Governor's Office of Planning and Research (OPR). The OPR Technical Advisory provides project screening criteria and guidance for analysis of VMT assessments under SB 743. Regulatory methodology of evaluating transportation impacts using LOS was updated under SB 743, and therefore VMT was not evaluated in the 2009 FEIR. It should be noted that "goods movement" (i.e., heavy truck trips) is not subject to VMT analysis per OPR guidelines. While heavy truck trips generated by industrial activity (i.e., the Project's collection truck and transfer tractor/trailer trips) are outside SB 743 regulation, passenger vehicle trips generated by employees and self-haul are subject to VMT standards. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled. Lead agencies are allowed to continue using their current impact

criteria, or to opt into the revised transportation guidelines. The City of Signal Hill has yet to adopt criteria for evaluating VMT impacts under CEQA. However, the City of Long Beach guidelines are used in this analysis, whose criteria are consistent with the OPR Technical Advisory. Note that OPR does not recommend a VMT specific threshold of significance for institutional projects. However, the City of Long Beach has developed *Traffic Impact Analysis Guidelines* (2020b) and *CEQA Transportation Thresholds of Significance Guide* (2020c) consistent with the OPR Technical Advisory. The City of Long Beach Guide specifies that:

> "*The development of institutional/government and public service uses that support community health, safety, and welfare will be presumed to have a less than significant transportation impact related to CEQA Guidelines Section 15064.3, subdivision (b). These facilities (e.g., police stations, fire stations, community centers, refuse stations) are already part of the community and, as public service uses, their VMT is accounted for in the existing regional average.*"

Note that the Project consists of an expansion of capacity at the existing institutional (i.e., refuse management) facility, and does not include changes to the existing land use or conflict with the City of Signal Hill General Plan Land Use Element. To demonstrate that the proposed Project would have a less than significant impact on regional VMT, the VMT per employee associated with the expanded operations has been estimated as compared to the regional average VMT per employee. The regional average VMT per employee for Los Angeles County is 18.5 miles/day/employee (City of Long Beach 2020c). **Table 3.14-4** summarizes the estimated net change in VMT from existing conditions as a result of the Project.

Table 3.14-4. Project Passenger Vehicle VMT Summary

Vehicle Type	One-Way Trip Length (miles)[1]	Project ADT (trips/day)	Project Daily VMT (miles/day)
Self-Haul (Passenger Vehicles)	10	400	4,000
Employee (Passenger Vehicles)	20	100	2,000
		TOTAL VMT	**6,000**

Notes:

1 Trip length as cited in the 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009).

To account for the additional passenger vehicle trips associated with self-haul deliveries, the self-haul drivers are considered "employees" in addition to 50 additional employees associated with expanded operations at the Facility, for a total of 350 employees. As shown in **Table 3.14-4**, the total passenger vehicle VMT associated with the Project would be 6,000 miles/day. Accordingly, the Project-related VMT per employee would be 17.1 miles/day/employee, which is less than the regional average VMT per employee of 18.5 miles/day/employee. Thus, the Project would be consistent with the use of the City of Long Beach Guide for institutional projects and would not have a significant impact relative to VMT. The impact is *less than significant.* Therefore there would be no new significant impacts, or more severe impacts, compared to the 2009 FEIR.

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

The FEIR determined no increase in hazards to due to a design feature, therefore there was no impact. Ongoing operations would not increase vehicle trips or result in any hazards due to design features or incompatible uses. Existing site access and on-site circulation patterns would remain the same. The proposed Project will not increase hazards due to a design feature or incompatible uses. The site plan configuration is consistent with General Plan and zoning requirements. Further, the Project would not result in any changes to any roads, intersections, streets, highways, nor would it provide any incompatible uses to the street and highway system. All vehicles that would be used for travel to and from the Project would be licensed and comply with all appropriate transportation laws and regulations including obtaining and adhering to provisions of any required permits for oversized loads. Therefore, the Project would not result in an increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses and impacts would be less than significant. Therefore there would be no new significant impacts, or more severe impacts, compared to the 2009 FEIR.

TRA (d). Would the Project result in inadequate emergency access?

The FEIR determined that the Project did not constrain emergency access, and in adhering to compliance for police and fire access requirements, there would be no impact. Ongoing operations would not result in any physical development to the site such that emergency access would be reduced or otherwise adversely affected. Project equipment and vehicles would continue to be parked off public roads within designated onsite parking areas and would not block emergency access routes. Existing emergency access points and adjacent public roadways would have sufficient capacity to continue to serve the facility. As such, the proposed Project would have a less than significant impact on emergency access. Therefore, there would be no new significant impacts, or more severe impacts, compared to the 2009 FEIR.

3.15 Tribal Cultural Resources

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRIBAL CULTURAL RESOURCES.				
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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: i. 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	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRIBAL CULTURAL RESOURCES.				
ii. 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

3.15.1 Environmental Setting

The Project Site is within the ethnographically recorded territory of the Gabrielino/Tongva San Gabriel Band of Mission Indians, with tribal headquarters currently located in the City of Santa Monica. Direct descendants of the Gabrielinos and members of the State-recognized tribe live in the southern California region. Members of the Gabrielinos/Tongva Tribal Nation continue the preservation of tribal customs, language and economic development.

3.15.2 Regulatory Setting

3.15.2.1 Assembly Bill 52

AB 52 requires lead agencies to consult with California Native American tribes that have requested formal consultation on a project. Accordingly, PRC sections 21080.3.1 and 21080.3.2 require that the lead agency provide for formal notification to the designated contact of, or a tribal representative of, traditionally affiliated California Native Tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the Project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. AB 52 was ratified to provide Tribes with an ancestral connection to a project area the opportunity to provide information on the presence of potential tribal cultural resources.

AB 52 directs the lead agency preparing the CEQA document to consult with Native American Tribes. Pursuant to AB 52, consultation is not required for the preparation of an Addendum.

3.15.2.2 California Native American Heritage Commission

In 1976, the California State Government passed AB 4239, establishing the NAHC as the primary government agency responsible for identifying and cataloging Native American cultural resources. As such, one of the NAHC's primary duties is to prevent irreparable damage to designated sacred sites, as well as prevent interference with the expression of Native American religion in California. The bill authorized the NAHC to act to prevent damage to and insure Native American access to sacred sites. The NAHC can request that the court issue an injunction for the site, unless it found evidence that public

interest and necessity required otherwise. The NAHC has authority to identify a Most Likely Descendant when Native American human remains are discovered any place other than a dedicated cemetery. Most Likely Descendants are granted the legal authority to make recommendations regarding the treatment and disposition of the discovered remains. These recommendations, although they cannot halt work on the Project site, give Most Likely Descendants a means by which to ensure that the Native American human remains are treated in the appropriate manner (NAHC 2022).

3.15.3 Impact Assessment

TCR (a). Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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:

i. 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

ii. 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Under PRC § 5024.1, an addendum to an existing EIR does not trigger a requirement to comply with AB52. The Project, in continuing operations with a higher tonnage accepted, would not require excavation or construction activities. All activities related to the Project would take place within the existing footprint of the Facility and therefore, there would be no impact to tribal cultural resources. The FEIR determined there were no operation-related impacts to cultural resources generated at the Project site; mitigation was required only for construction-related impacts. This addendum is consistent in this analysis. There would be no new significant impacts, or more severe impacts, compared to the 2009 FEIR.

3.16 Wildfire

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Wildfire. Would the Project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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 uncontrollable spread of a wildfire?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Wildfire. Would the Project:				
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.16.1 Environmental Setting

The California Department of Forestry and Fire Protection's (CAL FIRE) Fire Resource and Assessment Program provides Fire Hazard Severity Zone (FHSZ) maps showing the severity of the threat of wildfires and the designation of responsibility for fire protection. CAL FIRE considers many factors to develop these maps, including fire history, existing and potential fuel sources (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for an area. There are three hazard levels (moderate, high, and very high) within state responsibility areas and very high in local responsibility areas (CAL FIRE 2022a; Los Angeles County Department of Regional Planning 2015).

Based on the FHSZ map for Los Angeles County, the Project Site is located within an urbanized/developed area and outside of designated FHSZs (CAL FIRE 2007, 2011). The Project area is entirely within the local responsibility area, and the Los Angeles County Fire Department provides all fire protection services and emergency medical/paramedic services within the City of Signal Hill. The closest fire station to the Project area is Signal Hill Station #60.

According to the City of Signal Hill's General Plan Safety Element (2016), Signal Hill has a low potential for wildland fire. The Safety Element outlines the following three sources of fire hazards which may arise in Signal Hill: open spaces with dry vegetation; urban development; and industry, particularly facilities associated with oil production, storage, and transportation (City 2016).

3.16.2 Regulatory Setting

3.16.2.1 State

3.16.2.1.1 California Department of Forestry and Fire Protection (CAL FIRE)

Preventing wildfires in the State Responsibility Area is a vital part of CAL FIRE's mission. While these efforts have occurred since the early days of the Department, CAL FIRE has adapted to the evolving destructive wildfires and succeeded in significantly increasing its efforts in fire prevention. The

Department's Fire Prevention Program consists of multiple activities including wildland pre-fire engineering, vegetation management, fire planning, education and law enforcement. Typical fire prevention projects include brush clearance, prescribed fire, defensible space inspections, emergency evacuation planning, fire prevention education, fire hazard severity mapping, and fire-related law enforcement activities (CAL FIRE 2022a). The fire hazard severity maps prepared by CAL FIRE designate Signal Hill as a local responsibility area, and none of the Project area is within the state responsibility area.

3.16.3 Impact Assessment

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

No Impact. The FEIR did not evaluate wildfire as a resource category due to changes in regulation since its publication. The Project site is located within an urbanized/developed area. Signal hill does not contain very high, or high fire hazard zones and is at the lowest wildland fire risk. The Project would not alter access to the site or the roadways used for emergency response or evacuation. An increase in truck trips was found to be less than significant, and as such the circulation changes would not interfere with any emergency responses. Therefore, there is no impact to wildfire resources.

WF(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. The FEIR did not evaluate wildfire as a resource category due to changes in regulation since its publication. However, the FEIR did evaluate wildfire risk under a previous version of the hazard impact resource category and found no impact. The Project site is located within an urbanized/developed area. Signal Hill does not contain very high, or high fire hazard zones and is at the lowest wildland fire risk. The Project site is not in proximity to wildlands, in the same location, and therefore there is no change and no impact due to factors driving wildfire.

WF(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. The FEIR did not evaluate wildfire as a resource category due to changes in regulation since its publication. Due to the urbanized setting of the Project area, it is only serviced by the Signal Hill Police Department and the County of Los Angeles Fire Department; no access requirements would be altered under the Project.

WF(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. The FEIR did not evaluate wildfire as a resource category due to changes in regulation since its publication. According to Cal Fire, Signal Hill does not contain very high, high, or moderate fire hazard zone and is at the lowest wildland fire risk. The proposed project is for a residential development in an urbanized area with no likelihood of flooding or landslide as described in section 3.8. Therefore, the Project would have no impact.

SECTION 4 References

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SECTION 5 List of Preparers

Personnel	Project Role
Catalyst Environmental Solutions	
Dan Tormey PhD, PG	Project Manager, Quality Control, Technical and Policy Review
Olivia Hogan Dan Tormey PhD, PG	Biological Resources
	Cultural Resources
	Tribal Cultural Resources
Paden Voget P.E.	Hazards and Hazardous Materials
	Hydrology and Water Quality
	Air Quality
	Energy
	Greenhouse Gas Emissions
	Noise
	Transportation
	Hydrology and Water Quality
	Geology and Soils
City of Signal Hill	
Colleen T. Doan	Community Development Director
Carlos Luis	Planning Manager

Appendix A Conditional Use Permit # 09-01

COPY

RESOLUTION NO. 2009-02-5748

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SIGNAL HILL, CALIFORNIA, APPROVING CONDITIONAL USE PERMIT 09-01, A REQUEST TO CONSTRUCT AND OPERATE A RECYCLING AND SOLID WASTE TRANSFER FACILITY ON AN APPROXIMATELY 3.75 ACRE SITE AT 2755 CALIFORNIA AVENUE IN AREA 3 OF THE SP-19, GENERAL INDUSTRIAL SPECIFIC PLAN, ZONING DISTRICT

WHEREAS, the applicant, EDCO Transport Services, LLC ("EDCO") , has submitted an application to construct and operate a recycling and solid waste transfer station on an approximately 3.75 acres of leased property at 2755 California Avenue in the City of Signal Hill, County of Los Angeles; and

WHEREAS, the site is legally described as Lots 1 – 39 and 42 – 48 of the North Long Beach Tract, in the City of Signal Hill, County of Los Angeles, State of California, as per map recorded in Book 10, Page 97 of Maps, in the office of the County Recorder of said county; and

WHEREAS, as required by AB 939, the State of California through enactment of the California Integrated Waste Management Act of 1989 (Public Resources Code Sections 40000 et. seq. (the "Act")) has directed all local jurisdictions to promote recycling and to maximize the use of feasible source reduction, recycling and composting options in order to reduce the amount of solid waste required to be disposed of by land disposal; and

WHEREAS, the nearest landfill at Puente Hills, a major solid waste disposal facility for the region, is owned and operated by the County Sanitation Districts of Los Angeles County; and

WHEREAS, the landfill at Puente Hills is scheduled to close by 2013, resulting in the need for additional waste processing facilities and transfer stations to be

developed in the region in order to meet the solid waste management needs of the region and protect the public health and safety; and

WHEREAS, to assist in meeting the City's obligations under the Act and to serve the needs of other jurisdictions in the region, a solid waste materials recovery facility/transfer station as defined by the Act is a valuable and desirable land use provided it includes state-of-the-art systems as may be required to protect the public from potential negative environmental impacts such as traffic congestion, noise, odor and dust; and

WHEREAS, the City's 2001 General Plan Land Use Element Update designated the portion of the Atlantic/Spring neighborhood area generally bounded by Olive and California Avenues and 27th and 29th Streets as 4.2, General Industrial and recommended the establishment of a General Industrial Specific Plan for the area to address development constraints including active and abandoned oil wells, oilfield pipelines and facilities, soil contamination, steep slopes, lack of public infrastructure and small parcels with fragmented ownership patterns; and

WHEREAS, General Plan Land Use designation 4.2, "General Industrial" anticipates heavy industrial uses subject to conditional use permit approval for such uses as, but not limited to, large recycling centers, provided that it can be demonstrated that such facilities operate safely, compatible with surrounding land uses and that potential negative environmental impacts can be mitigated; and

WHEREAS, pursuant to Signal Hill Municipal Code Section 20.39.090, entitled "Land Use," Municipal Code Chapter 20.56, entitled "Recycling Facilities," and Municipal Code Chapter 20.64, entitled "Uses Subject to Conditional Use Permit," the subject application to construct and operate a recycling and solid waste transfer station is properly a matter for Planning Commission review and recommendation to the City Council for approval; and

WHEREAS, on January 29, 2009, notice of the Planning Commission and City Council public hearings regarding Conditional Use Permit 09-01 was mailed to all property owners within a 300 foot radius from the subject property, was published in The Signal Tribune newspaper, and was posted in accordance with Signal Hill Municipal Code Sections 1.08.010 and 20.86.060; and

WHEREAS, on February 10, 2009, after proper notice and public hearing, the Planning Commission recommended City Council approval of Conditional Use Permit 09-01; and

WHEREAS, the City Council adopted the Environmental Impact Report for the EDCO Recycling and Transfer Facility (State Clearinghouse No. 2008081009) relative to Conditional Use Permit 09-01 in satisfaction of the requirements of the California Environmental Quality Act; and

WHEREAS, on February 17, 2009, a public hearing was held before the City Council and all interested parties were given an opportunity to be heard regarding the Conditional Use Permit.

NOW, THEREFORE, BE IT RESOLVED, THAT THE CITY COUNCIL OF THE CITY OF SIGNAL HILL, CALIFORNIA, DOES HEREBY FIND AS FOLLOWS:

1. The proposed project, subject to the attached conditions, is in conformance with the zoning ordinance, other ordinances and regulations of the City, and the following goals and policies of the General Plan Land Use Element:

GOAL 1 – Manage growth to achieve a well-balanced land use pattern that accommodates existing and future needs for housing, commercial and industrial land, open space, and community facilities and services, while maintaining a healthy, diversified economy adequate to provide future City revenues.

Policy 1.1 - Encourage and manage growth in order to accommodate year 2010 moderate growth population, household and employment projections.

Finding regarding Policy 1.1 – The development of the proposed project will provide employment for employees of the recycling and transfer project and help the City achieve year 2010 employment projection.

Policy 1.5 - The distribution and intensity of land uses shall be consistent with the land use map and descriptions for each of the land use categories in Section VI of the Land Use Element.

Finding regarding Policy 1.5 – The 2001 City of Signal Hill General Plan, Land Use Element, designated the part of the Atlantic/Spring neighborhood as 4.2 General Industrial. This designation allows uses such as the proposed recycling and solid waste transfer facility subject to a conditional use permit.

Policy 1.6 - Ensure an adequate supply of commercial and industrial land for potential commercial and industrial expansion and development.

Finding regarding Policy 1.6 – The proposed project site and other similar adjacent properties were zoned Commercial General from 1964 to the present. Under that designation, the land failed to develop into a viable commercial use, most likely due to a lack of highway visibility necessary for many commercial uses, ownership fragmentation, and site contamination. The revised zoning designation, General Industrial per Specific Plan 19, ensures an adequate supply of land for industrial expansion and development.

Policy 1.7 - Broaden the City's tax base by attracting commercial and industrial development to the City which will provide economic and employment benefits to the community while ensuring compatibility with other general plan goals and policies.

Finding regarding Policy 1.7 – The development of a recycling and solid waste transfer facility will provide economic and employment benefits to the City of Signal Hill.

Policy 1.9 - Provide incentives to encourage lot consolidations and large parcel land assemblage to provide expanded opportunities for coordinated development and redevelopment.

Finding regarding Policy 1.9 – The proposed project consolidates several small size lots into a larger parcel of land and provides the opportunity for coordinated development and redevelopment.

GOAL 2 - Ensure that new development is consistent with the City's circulation system, availability of public facilities, existing development constraints, and the City's unique characteristics and natural resources.

Policy 2.5 - Ensure an orderly extension of essential services and facilities and preservation of a free-flowing circulation system, by requiring the provision of essential services and facilities at the developer's cost where these systems do not exist or are not already part of the City's financed annual Capital Improvement Program.

Finding regarding Policy 2.5 – Conditions of approval require the extension and upgrading of streets and essential services serving the proposed project site and ensure that subsequent development in the area will occur in an orderly fashion.

Policy 2.6 - Encourage the development of oilfield areas through the removal or relocation of wells and pipelines, or with site plan designs that encourage the joint use of land for oil production and other urban uses while maintaining essential access to petroleum resources.

Finding regarding Policy 2.6 – The proposed project site was previously used for oil production and there are 14 known wells in operation or in previous operation at the site. Four wells and associated storage tanks will remain in operation for the foreseeable future. The applicant has investigated all existing oil wells and will satisfy the abandonment or re-abandonment requirements of the State Division of Oil and Gas as a prerequisite to development of the property.

GOAL 3 - Assure a safe, healthy, and aesthetically pleasing community for residents and businesses.

Policy 3.2 – Enhance the interface between existing and future development and oil production activities to protect the access to the resource while mitigating adverse impacts of oilfield operations with an urban area.

Finding regarding Policy 3.2 – The proposed project has consolidated property ownership for the blighted block between Patterson Street, California Avenue, 28th Street, and Olive Avenue. The site plan accommodates four existing oil wells that will continue oil production.

Policy 3.4 – Promote mixed-use development and ensure compatible integration of adjacent uses to minimize conflicts.

Finding regarding Policy 3.4 – The proposed project implements the General Industrial Specific Plan 19 which allows land uses currently prohibited in the CG and CO zones. The purpose of the SP-19 is to ensure an adequate supply of industrial land for industrial expansion and development. The recycling and solid waste transfer project was anticipated at

the time the SP-19 was initially adopted as the Plan was to be implemented in phases. The Plan listed additional uses such as the subject facility as possible uses to be considered in future amendments.

Policy 3.6 - Provide for undesirable or hazardous commercial or industrial uses while avoiding concentrating those uses in close proximity to schools or residential neighborhoods, and ensure adequate monitoring of those uses, which involve hazardous materials to avoid industrial accidents, chemical spills, fire, and explosions.

Finding regarding Policy 3.6 – The proposed recycling and transfer project is not located in proximity to schools or residential areas. The facility will accept household hazardous wastes to be transported off-site to be processed. The proposed project includes a litter control, vector control, and odor management programs to minimize any impacts associated with litter, vectors, and odor to a level of less than significant for surrounding land uses.

Policy 3.10 - Encourage the revitalization and redevelopment of older commercial and industrial areas.

Finding regarding Policy 3.10 – The proposed amendment facilitates revitalization and redevelopment of an area of the City that, due to oilfield activity, small lot sizes, interior lot locations and commercial zoning has not developed with commercial projects typical of the surrounding region. It revitalizes and redevelops one of the City's oldest commercial areas in accordance with the purpose of SP-19.

Policy 3.11 – Maintain and improve, where necessary, the City's infrastructure and facilities.

Finding regarding Policy 3.11 – The proposed facility will improve the City's below standard existing infrastructure and facilities adjacent to the project site.

Policy 3.12 - Encourage and promote high quality design and physical appearance in all development projects.

Finding regarding Policy 3.12 – The architecture of the proposed project represents a high quality design which will result in an improved physical appearance on the project site.

Policy 3.18 - Minimize the impacts of storm water runoff to the maximum extent practicable, on the biology, water quality and integrity of natural drainage systems and water bodies

Finding regarding Policy 3.18 – The new facility incorporates best management practices in its design to recover storm water runoff and to minimize potential impacts on natural drainage systems and water bodies.

Policy 3.19 - Maximize to the extent practicable, the percentage of permeable surfaces to allow more percolation of storm water runoff into the ground.

Finding regarding Policy 3.19 – The proposed facility includes permeable surfaces to allow for the percolation of storm water runoff into the ground.

Policy 3.20 – Minimize, to the extent practicable, the amount of storm water directed to impermeable areas and to the municipal separate storm water system. Build storm water pollution prevention systems into all development projects including maximizing landscaped areas and providing areas for storm water storage and sedimentation.

Finding regarding Policy 3.20 – The proposed facility design includes best management practices to contain storm water on the site and to allow for sedimentation and ground water recharge.

Policy 3.21 - Require new projects to include permanent controls to reduce storm water pollutant loads from development sites including parking lots to the maximum extent practicable.

Finding regarding Policy 3.21 – The new facility includes permeable surfaces to allow for the percolation of storm water runoff into the ground.

GOAL 4 – Ensure that future land use decisions are the result of sound and comprehensive planning.

Policy 4.1 – Consider all general plan goals and policies, including those in other general plan elements, in evaluating proposed development projects for general plan consistency.

Finding regarding Policy 4.1 – The proposed project was evaluated for general plan consistency as indicated above.

1. The 3.75 acre site for the proposed use is adequate in size and shape to accommodate operation of a recycling and solid waste transfer facility, in that:

a) There is adequate vehicle access to the site from California Avenue, 27th Street and Patterson Street; and

b) There are 38 off-street parking spaces plus 5 over-sized spaces for truck parking; and

2. As conditioned, the streets surrounding the site for the proposed use and related to the Streets and Highways Element of the General Plan are adequate in width and pavement type to carry the quantity and type of traffic generated by the proposed use in that:

The site is centrally located in the City and has frontage along California Avenue which is a Secondary Modified Highway. The site is located about one mile south of the 405 Freeway, one mile east of

the 710 Freeway and one mile north of Pacific Coast Highway. All large trucks serving the site will enter the facility by turning off California Avenue onto 28th Street and then onto a private driveway.

These trucks will leave the site from a driveway on Patterson Street. Conditions require that all these streets be improved to accommodate the traffic generated by the facility.

3. The conditions are deemed necessary to protect the public health, safety, and general welfare.

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the City Council of the City of Signal Hill, California, does hereby approve Conditional Use Permit 09-01, subject to the Conditions of Approval attached hereto (Exhibit A)

PASSED, APPROVED AND ADOPTED at a regular meeting of the City Council of the City of Signal Hill, California, on this 17th day of February 2009.

MICHAEL J. NOLL
MAYOR

ATTEST:

KATHLEEN L. PACHECO
CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss.
CITY OF SIGNAL HILL)

I, KATHLEEN L. PACHECO, City Clerk of the City of Signal Hill, California, do hereby certify that Resolution No. 2009-02-5748 was adopted by the City Council of the City of Signal Hill, California, at a regular meeting held on the 17th day of February 2009, by the following vote:

AYES: MAYOR MICHAEL J. NOLL, VICE MAYOR ELLEN WARD, COUNCIL MEMBER LARRY FORESTER, COUNCIL MEMBER TINA L. HANSEN, COUNCIL MEMBER EDWARD H.J. WILSON

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE

KATHLEEN L. PACHECO
CITY CLERK

CONDITIONAL USE PERMIT 09-01
Approved Conditions of Approval

Project Description: **EDCO Recycling and Solid Waste Transfer Facility with solid waste transfer station with tipping area, material recovery area, green waste area, construction debris area, office and administration area, recycling buy-back area, household hazardous waste collection and disposal center, fleet vehicle maintenance shop, truck scale and scale house, fueling station and truck wash area.**

Location: **2755 California Avenue**

Applicant: **EDCO Transport Services**

1. The applicant shall agree to defend, indemnify and hold harmless, the City of Signal Hill, it agents, officers and employees from any claim, action or proceeding against the City of Signal Hill or its agents, officers or employees to attach, set aside, void or annul, an approval of the City of Signal Hill, its legislative body, advisory agencies, or administrative officers concerning subject approval. The City of Signal Hill will promptly notify the applicant of any such claim, action or proceeding against the City of Signal Hill and the applicant, or owner, will either undertake defense of the matter and pay the City's associated legal costs, or will advance funds to pay for defense of the matter by the City Attorney. If the City of Signal Hill fails to promptly notify the applicant of any such claim, action or proceeding, or fails to cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify or hold harmless the City of Signal Hill. Notwithstanding the foregoing, the City retains the right to settle or abandon the matter without the applicant's consent, but should it do so, the City shall waive the indemnification herein, except the City's decision to settle or abandon a matter following an adverse judgment or failure to appeal, shall not cause a waiver of the indemnification rights herein.

2. Approval shall be null and void if the applicant fails to proceed with the project in substantial conformance with the Schedule of Performance attached to the Development Agreement as Exhibit C, or if the approval is rendered void or terminated as a result of a termination or a default pursuant to the terms of the Development Agreement.

3. The maximum allowable capacity of the facility shall be 1,500 tons of combined recyclables and solid waste per day.

4. The recycling and solid waste transfer uses may operate 7 days a week, 24 hours a day, however, self-haul shall be limited to between the hours of 5 a.m. to 10 p.m. The Director of Community Development may approve exceptions to the hours of operation limitations for specific nighttime self-haul operations.

5. All refuse must be removed from the facility within 48 hours of delivery.

6. To the extent possible, all facility operations shall be conducted within the building.

7. The building shall be fully enclosed and include powered roll-up doors that can be closed to control dust and odor.

8. No outdoor storage of any material, including green waste, shall be permitted.

9. Consistent with California Integrated Waste Management Board guidelines, the applicant shall develop and maintain a Transfer Processing Report (TPR), Odor Control Plan, Emergency Response Preparedness Plan and Vector Control Plan. The TPR shall include operating procedures for odor reduction, formulated and tested for effectiveness by first-hand experience at the applicant's existing facilities and to be in place from and followed from the first day of operation.

10. Applicant shall construct and operate the MRF/TS in compliance with all requirements, recommendations, and best management practices ("BMPs") for minimization and mitigation of air quality and odor impacts as detailed in Section 3.5 of the EIR, including but not limited to, compliance with all California Air Resources Board ("CARB") and SCAQMD standards, rules, and regulations as described in that Section; implementation of the construction BMPs listed in Table 3.5-6 of the EIR including but not limited to pre-watering of soil prior to soil disturbances, use of dust suppressants to stabilize stockpiles, pre-watering of material prior to truck loading, and limitation of truck speeds and roadway cleaning, as described therein; implementation of the odor mitigation BMPs listed in Section 3.5.3.2 of the EIR, including but not limited to preparation of an Odor Management Plan for MRF/TSs, limitation of building openings to between 2 and 5 percent of the building walls, installation of a building misting system and fan system to control odors, and all of the other BMPs described therein.

11. The exhaust ventilation system for controlling dust and odor within the solid waste transfer station and material recovery areas shall be varied consistent with the level of dust and odor generated from material volumes. The system shall meet all applicable standards of the South Coast Air Quality Management District and include filters to retain dust and avoid generating visible dust plumes.

12. Applicant shall construct and maintain a misting system that shall include water and/or odor neutralizers and shall be kept on during operational hours, except for routine maintenance.

13. The applicant shall be responsible to maintain the implement vector control measures to ensure that insects, rodents or other animals of public health significance are effectively minimized.

14. The applicant shall maintain the perimeter block wall and chain link fence with green vinyl slats as well as all landscaping and irrigation systems installed on private property as well as that within the public right-of-way along Patterson and 28th Streets in a first class condition and shall record a Landscape Maintenance Agreement against the property in a form subject to approval of the City Attorney.

15. All Internal traffic circulation and ingress and egress from the MRF/TS shall comply with the Site Circulation Plan in Figure 3.3-3 of the EIR. Trucks en route to and departing from the MRF/TS shall follow the Off-Site Circulation routes shown in Figures 3.3-4 and 3.3-5 of the EIR. Employee shifts shall be scheduled so that employees do not arrive or depart during peak traffic hours, as detailed in Table 3.3-4 of the EIR.

16. Applicant-owned vehicles shall not park overnight on City streets or on private properties in the City without prior City zoning review and approval and compliance with all of the requirements for trucking storage yards.

17. Applicant shall implement daily litter pick-up on site, along adjacent properties, adjacent streets and along the designated transportation corridors, from any litter resulting from operation (including customers delivering waste to the Site) will be removed. Applicant's obligation to cleanup debris in public right-of-ways and/or transportation corridors shall apply regardless of whether such debris was inadvertently spilled or intentionally dumped. The transportation corridors (with those designated for litter control) are as follows:

Willow Street – City limit to City limit

Spring Street – City limit to City limit (Litter Control Cherry to Atlantic)

Cherry Avenue – City limit to City limit

California Avenue – Willow Street to Spring Street (Litter Control)

Orange Avenue – Spring Street to 32nd Street (Litter Control)

Pacific Coast Highway – City limit to City limit.

A street sweeper shall be used to assist in compliance with this condition. Records of cleaning schedules, including dates and times, shall be maintained at the facility.

18. Applicant shall provide a level of services at the Facility such that City streets surrounding the Site shall be free of any queuing of vehicles entering or leaving the Facility other than occasional queuing and intermittent stoppages on 28th Street west of California Street which do not interfere with through traffic. Applicant shall manage vehicular queuing on 28th Street such that queue spillback shall not reach California Avenue. Applicant shall staff the Facility as needed to meet this performance standard and prevent interference with traffic circulation on all streets other than that portion of 28th Street immediately adjacent to the Site.

19. All commercial vehicles delivering to the facility shall be adequately covered or enclosed to eliminate spillage on adjacent properties or public streets in-transit.

20. The applicant shall be responsible to keep the areas outside of the buildings free of litter, dust and debris. The exterior areas shall be cleaned daily. An automated sweeper equipped with water and odor neutralizers shall be used on paved surfaces at the site. Records of cleaning/or schedules, including dates and times, shall be maintained at the facility.

21. The loading dock area shall be kept in a clean and sanitary state, free from trash and debris.

22. The tipping floors shall be cleaned on a regular basis to remove build-up of waste residue. Records of cleaning schedules, including dates and times, shall be maintained at the facility.

23. The applicant shall comply with existing City noise standards during construction and operation of the MRF/TS. Pursuant to Chapter 9.16 of the City Municipal Code, noise levels generated at the Facility shall not exceed seventy five (75) dB as measured at adjacent property lines. If the City receives a noise complaint, the City may hire a certified acoustical engineer to measure Facility-related noise levels. EDCO shall be responsible to suspend or mitigate non-compliant noise if a violation is documented and reimburse the City for acoustical engineering costs. The City's Planning Director can implement further noise mitigation measure in the event of complaints.

24. No advertising material or signs shall be painted, installed, erected or displayed on the building exterior without first obtaining City approval.

25. No signs are permitted on the roof of the building. This includes temporary banner signs mounted on temporary or permanent supports, aerial signs, animated signs, and rotating signs.

26. The applicant shall maintain an on-site directional/informational sign program for the facility to ensure safe circulation and enforcement of rules and regulations. The sign program shall be reviewed and approved by the Director of Community Development prior to installation.

27. The applicant shall provide sufficient staff to maintain the property and surrounding streets in first class condition free of accumulations of trash and debris. An attendant shall be stationed at or near the scale house during operational hours to greet in-coming vehicles and direct them to the appropriate location to off-load.

28. The facility operation shall meet all municipal code requirements of the City of Signal Hill and any applicable requirements of the State Department of Conservation, Division of Oil, Gas and Geothermal Resources, California Integrated Waste Management Board, Los Angeles County Department of Public Health, Los Angeles County Fire Department and South Coast Air Quality Management District.

29. The premises shall be subject to inspection by city personnel pursuant to the provisions of the Development Agreement, including, but not limited to, those provisions regarding "reports and monitoring," and also the provisions concerning complaints or nuisance conditions on the site and enforcement rights.

30. In addition to the above-listed conditions, the applicant acknowledges that additional conditions and obligations will be imposed upon it through a Development Agreement, Disposition and Development Agreement with a Lease, Operations Agreement and Covenants, Conditions and Restrictions applicable to the project.

I HAVE READ, UNDERSTAND AND AGREE TO ABIDE THE AFOREMENTIONED CONDITIONS OF APPROVAL AS HEREIN STATED.

APPLICANT

FEB. 26, 2009
DATE

Appendix B Solid Waste Facility Permit #19-AA-1112

SOLID WASTE FACILITY PERMIT

Facility Permit Number: **19-AA-1112**

1. Name and Street Address of Facility:	2. Name and Mailing Address of Operator:	3. Name and Mailing Address of Owner:
EDCO Recycling and Transfer 2755 California Avenue Signal Hill, CA 90755	EDCO Transport Services LLC 224 S. Las Posas Road San Marcos, CA 92078	PhilEsp LLC, John R Cockriel, and Patricia Cockriel Family Trust, ARLEE Investments, LLC 25 Fifteenth Place #601, Long Beach CA 90802

4. Specifications:

a. Permitted Operations:

- ☐ Solid Waste Disposal Site
- ■ Transfer/Processing Facility (MRF)
- ☐ Composting Facility /Green Material
- ☐ Transformation Facility
- ☐ Other: _____

b. Permitted Hours of Operation: Receipt of Refuse/ Waste: 24 hours/day 7days per week

Ancillary Operations/Facility Operating Hours: 5:00am-10:00pm

c. Permitted Maximum Tonnage: _____1,500 Tons/Day

d. Permitted Traffic Volume: _____1,656 PCE Vehicles/Day

e. Key Design Parameters (Detailed parameters are shown on site plans bearing EA and CalRecycle validations):

	Total	Disposal	Transfer/Processing	Maintenance/ Administration	Transformation
Permitted Area (acres)	3.75a	N/A	1.29a	0.29	N/A
Design capacity		N/A	6,336Tons/Day	N/A	N/A

Upon a significant change in design or operation from that described herein, this permit is subject to revocation or suspension. The attached findings and conditions are integral parts of this permit and supersede the conditions of any previously issued solid waste facility permit.

5. Approval

Approving Officer Signature

Dorcas Hanson-Lugo, Chief
Solid Waste Management Program

6. Local Enforcement Agency:

County of Los Angeles
Department of Public Health
Solid Waste Management Program
5050 Commerce Drive
Baldwin Park, California 91706
Telephone: (626) 430-5540

7. Date Received by CalRecycle: May 9, 2011

8. CalRecycle Concurrence Date: June 22, 2011

9. Permit Issued Date: June 23, 2011

10. Permit Review Due Date: June 2,2026

11. Owner/Operator Transfer Date: N/A

12. Legal Description of Facility: Lots 1 – 39 inclusive/Lots 42 – 48 inclusive from Book 10, Page 97 of Maps County LA Recorder. (See TPR, Section 1.2, Page 3 for full legal description). LA County APNs: 7207-022-043, 7207-022-044, 7207-022-900, 7207-022-045, and 7207-022-046. Latitude: 33 degrees, 48 mins, 22.38 sec N and Longitude: 118 degrees, 10 mins, 50.54 sec East.

13. Findings:

a. This permit is consistent with the Los Angeles County Countywide Integrated Waste Management Plan, which was approved by the Department of Resources Recycling and Recovery (CalRecycle), formally the California Integrated Waste Management Board (CIWMB) on June 23, 1999. The location of the facility is identified in the City of Signal Hill Nondisposal Facility Element, pursuant to Public Resources Code (PRC), Section 50001(a)(2).

b. This permit is consistent with the standards adopted by the CalRecycle pursuant to PRC, Section 44010.

c. The design and operation of the facility is consistent with the State Minimum Standards for Solid Waste Handling and Disposal as determined by the Local Enforcement Agency (LEA), pursuant to PRC, Section 44009.

d. The local fire protection agency, the County of Los Angeles County Fire Department, has determined that the facility is in conformance with applicable standards, pursuant to PRC, Section 44151.

e. A Environmental Impact Report (EIR) dated November 2008 was approved by the City of Signal Hill Planning Commission on February 10, 2009. It was certified by the City of Signal Hill City Council on February 17, 2009. The EIR describes and supports the design and operation, which will be authorized by the issuance of this permit. A Notice of Determination was filed with the Los Angeles County Clerk on 2009.

14. Prohibitions

The permittee is prohibited from accepting the following wastes:

- Hazardous, radioactive, medical (as defined in Title 22, California Code of Regulations, Section 117600-118360 of the Health and Safety Code), liquid, designated, or other wastes requiring special treatment or handling, except as identified in the Transfer/Processing Report and approved amendments thereto and as approved by the LEA and other federal, state, and local agencies.
- Sewage sludge.

15. The following documents also describe the operation of this facility:

Document	Date	Document	Date
Transfer/Processing Report	September 2010	National Pollution Discharge Elimination System (WDID No. 4 19C355500)	June 2, 2009
Environmental Impact Report File No. SCH2008081009	February 17, 2009	Los Angeles County CUPA Permit No. AR0003101	February 9, 2010
Conditional Use Permit Resolution No. 2009-02-5748	February 17, 2009		

16. Self-Monitoring:

Results of all self-monitoring programs as described in the Transfer/Processing Report will be reported as follows::

Program:	Reporting Frequency:	Agency Reported To:
The types and quantities of non-hazardous wastes, including separated or commingled recyclables, received each day. The operator shall maintain these records on the facility's premises for a minimum of three years. These records shall be made available to any LEA personnel on request.	Monthly (Due 15 days following the end of each reporting period)	LEA
The types and quantities of hazardous wastes, medical wastes, or otherwise prohibited wastes found in the waste stream and the disposition of these wastes.		
All incidents of unlawful disposal of prohibited materials and the operator's actions taken. Indicate those incidents which occurred as a result of the random load checking program. Incidents, as used here, means that the hauler or producer of the prohibited materials is known.		
Reports of all special/unusual occurrences and the operator's actions taken to correct these occurrences.		
The number of vehicles using the facility per day and per week. The transfer and collection vehicles must be totaled separately.		
Copies of all written complaints regarding this facility and the operator's actions taken to resolve these complaints. (Notification to the LEA within one day following the complaint is still required.)		
Record of receipt of a Notice of Violation from any regulatory agency. In addition, the operator shall notify the LEA at once following receipt of a Notice of Violation or upon receipt of notification of complaints regarding the facility, which have been received by other agencies.		
The quantities of waste transferred each day to each of the disposal sites indicated on Transfer Station Monthly Waste Disposal Monitoring Form (Attachment A)		
Completed copies of the following Monitoring and Reporting Form are required by, and may be amended by, the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force: Solid Waste Characterization Data (Attachment B)	Quarterly (Due the 15th of January, April, July, and October)	(1) Los Angeles County Department of Public Works, Environmental Programs Division (2) LEA

17. LEA Conditions:

A. Standard Requirements:

1. This facility shall comply with all applicable State Minimum Standards for Solid Waste Handling and Disposal in Division 7 of Title 14 of the California Code of Regulations.

2. This facility shall comply with all mitigation measures specified in any certified environmental documents that are within the authority of the LEA and are contained in a mitigation monitoring and reporting program pursuant to Public Resources Code (PRC), Section 21081.6.

3. Additional information concerning the design and operation of this facility shall be furnished on request of LEA personnel.

4. A copy of this permit and current TPR, as amended, shall be maintained at the facility so as to be available at all times to facility personnel and the LEA.

5. Notification to the LEA on the same day for any written complaints received or any complaint called into the facility and any record of receipt of a violation from any regulatory agency.

6. This permit is subject to review by the LEA and may be suspended, revoked or revised at any time for sufficient cause.

7. The LEA reserves the right to suspend or modify waste receiving operations when deemed necessary due to an emergency, a potential health hazard, or the creation of a public nuisance.

8. The operator shall notify the LEA, in writing, of any proposed changes in the routine facility operation or changes in facility design during the planning stages. In no case shall the operator undertake any changes unless the operator first submits to the LEA a notice of said changes at least 180 days before said changes are undertaken. Any significant change as determined by the LEA would require a revision of this permit.

9. The operator and/or owner shall notify the LEA of any plans to encumber, sell, transfer, or convey the operation or ownership to a new operator or owner, at least 45 days prior to the anticipated transfer, by written certification, including information deemed sufficient by the CalRecycle and the LEA. If the facility will not be operated in compliance with the terms and conditions of this permit, the new owner shall be required to file an application for a revision of this permit.

10. The operator shall maintain a log of special/unusual occurrences. The log shall include, but is not limited to fires, explosions, discharges of hazardous wastes, significant accidents and injuries, and property damage. Each log entry shall be accompanied by a summary of any actions taken by the operator to mitigate the occurrence. The operator shall maintain this log at the facility so as to be available at all times to site personnel and to LEA personnel. Any entries made in this log must be reported to the LEA at once. Call the duty officer, County of Los Angeles, Department of Public Health, Solid Waste Management Program at (626) 430-5540.

B. Particular Requirements:

1. The operator shall install and maintain a sign at the entrance indicating that no hazardous or liquid wastes are accepted and that all incoming loads must be fully tarped.

2. No polluted surface waters shall leave this site, except as permitted by a National Pollutant Discharge Elimination System permit issued in accordance with the Federal Clean Water Act and the California Water Code.

3. Operational controls shall be established to preclude the receipt and disposal of volatile organic chemicals or other types of prohibited wastes:

   a. The operator shall install and maintain an operational, calibrated radiation detector at the scales to detect radioactive materials, at all times, during the hours of receipt of solid waste.

   b. Incidents of receipt of suspected radioactive materials, or warnings from the radiation detector, shall be reported immediately to the County of Los Angeles, Department of Public Health, Radiation Management Program at (213) 351-7897 and the LEA.

   c. The operator shall comply with the approved Hazardous Waste Screening Program as described in the current Transfer/Processing Report. Any changes in this program must be approved by the LEA prior to implementation.

      (1) At least twice per operating day a random load check shall be conducted. The operator shall inspect all waste vehicle loads if there is any reason to believe the loads may contain prohibited wastes. In all other cases, the operator shall select waste vehicles for inspection on a random basis.

(2) The LEA may increase the required number of incoming waste load inspections if it has reason to believe that the number currently required is inadequate to ensure compliance with the regulations and protection of the public health and safety and the environment.

(3) At all times when facility operations are underway, an attendant or attendants shall be present to supervise the loading and unloading of the solid waste and other materials.. Facility personnel performing duties required by the Waste Load Checking Program shall be trained. The training must include, but is not limited to: how to recognize hazardous waste and other prohibited waste, the proper method of containment, and the reporting requirements of this program. Station personnel are to be retrained on an annual basis and updated as needed. New employees are to be trained prior to work assignments.

(4) Incidents of unlawful disposal of prohibited materials shall be reported to the LEA monthly as described in the monitoring section of this permit. In addition, the following agencies shall be notified at once of any incidents of illegal hazardous materials disposal:

(a) Duty officer, Los Angeles County Fire Department, Health Hazardous Materials Division at (323) 890-4317.

(b) Environmental Crimes Division, Los Angeles County District Attorney at (213) 580-8777.

(c) California Highway Patrol at (818) 240-8200.

(d) Any hazardous materials thus found shall be set aside in a secure area to await proper disposition following notification of the producer (if known) and the appropriate governmental agencies.

4. The maximum storage period for recyclables shall be as described in the approved TPR. All stored materials must be contained and stored as described in the approved TPR. The LEA reserves the right to reduce the duration of storage if storage presents a health hazard or becomes a public nuisance.

5. The LEA reserves the right to require the operator to provide more stringent dust and odor control measures, if the proposed dust and odor control measures proves inadequate or ineffective.

6. The tipping floor and sorting area shall be cleaned periodically throughout the day every day.

7. The operator shall comply with the operating procedure for the removal of all waste from the facility as described in the approved TPR. The LEA reserves the right to require the operator to provide more stringent procedures for waste removal if the duration for waste removal presents a health hazard or becomes a public nuisance.

8. The operator shall conduct all waste processing and separation activities within enclosed buildings.

<END OF DOCUMENT>

Appendix C Transportation Technical Report

Transportation Technical Report

EDCO Expansion Project
Signal Hill, California

Prepared for City of Signal Hill

January 15, 2024

Table of Contents

List of Tables

List of Figures

SECTION 1 Introduction

Catalyst Environmental Solutions Corporation (Catalyst) has prepared this report to evaluate the potential for impacts related to transportation and circulation resulting from the proposed expansion of operations at the EDCO Recycling and Transfer Material Recovery Facility (Facility) in the City of Signal Hill, California. This report includes an evaluation of potential impacts associated with the permanent increases in traffic in the vicinity of the Project site and whether Project-induced traffic is in excess of standards established by the City of Signal Hill, City of Long Beach, and/or Los Angeles County. Information given in this report is based on transportation and circulation information obtained from available public resources including the City of Signal Hill General Plan Circulation Element (2009), City of Long Beach General Plan Mobility Element (2013), and published CEQA documents in the vicinity of the Facility.

1.1 Project Overview

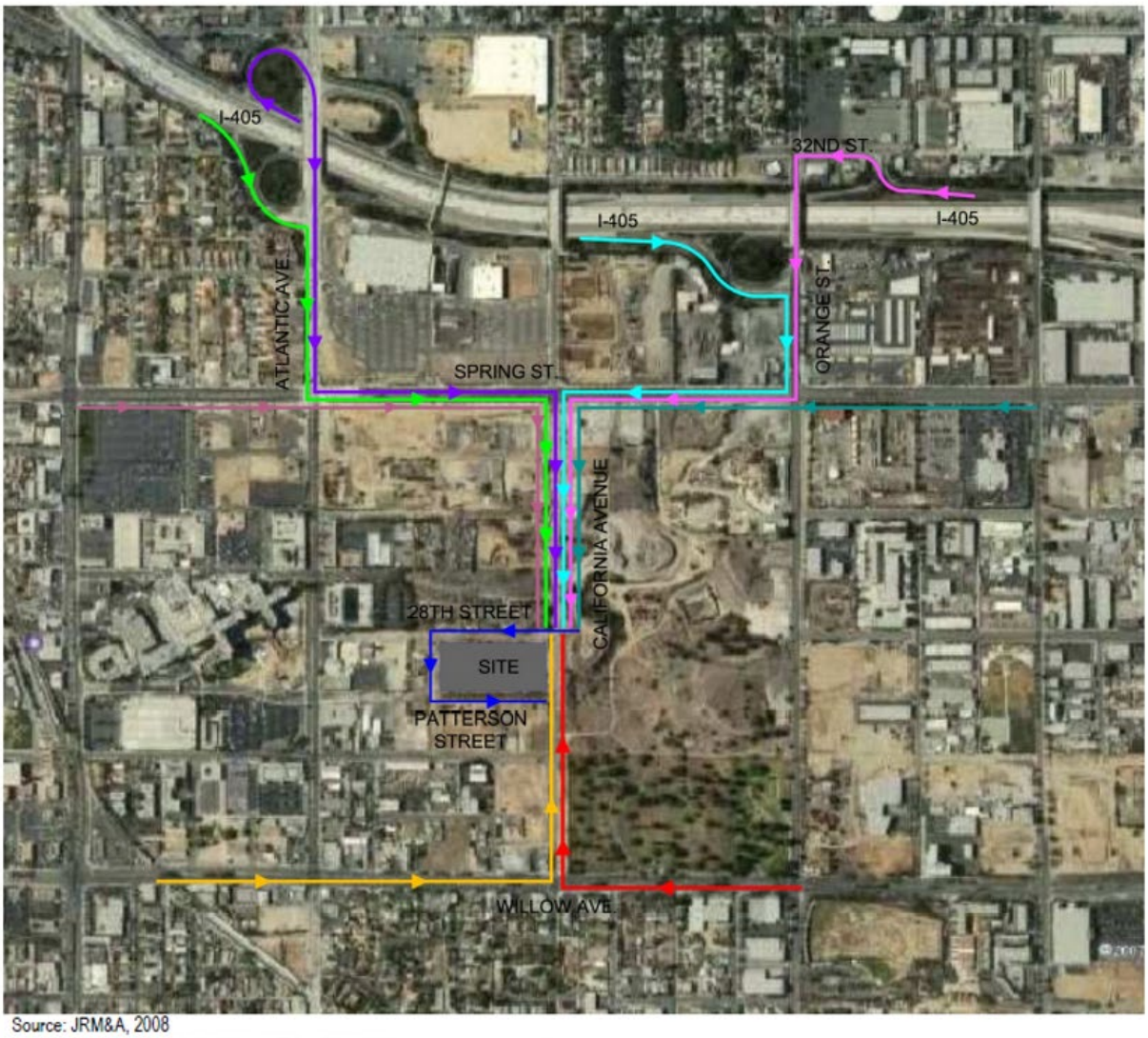
1.1.1 Project Location

The Facility is owned and operated by EDCO Transport Services and is located on privately owned land. The Facility is a 3.75-acre site located at 2755 California Avenue, Signal Hill, California (**Figure 1**). The Facility's Assessor's Parcel Number (APN) is 7207-022-043 in Township 4 South, Range 12 West. The site is zoned as General Industrial Specific Plan (SP-19) with the Facility currently operating in Area 3 of the SP-19 under Conditional Use Permit 09-01 granted on February 17, 2009.

The activities of the Facility include the manual sorting and transfer of residential, commercial and industrial refuse, transfer of self-haul public refuse, processing of materials collected by curbside recycling programs, a public drop-off area for recyclable materials, and a Permanent Household Hazardous Waste Collection Facility (PHHWCF). Once offloaded inside the Facility, waste is loaded into transfer trucks and then transported to a permitted landfill.

Access to the Facility is from California Avenue and 28th Street. The primary route of delivery to the Facility traveling south on Interstate 405 (I-405) is exit to Atlantic Avenue. Proceed south on Atlantic Avenue and turn east onto Spring Street. Proceed east on Spring Street and turn south onto California Avenue. Then proceed south on California Avenue to 28th Street and turn west to access Facility. The primary route of delivery to the Facility traveling north on I-405 is exit Orange Avenue off ramp, turn west onto East 32nd Street and proceed to Orange Avenue. Turn south on Orange Avenue, continue to Spring Street, turn west and then proceed to California Avenue and turn south. After turning onto California Avenue, proceed to 28th Street and turn west to access the site. Arrival and departure routes are illustrated in **Figure 2** and **Figure 3**, respectively.

Figure 1 Project Site



Source: JRM&A, 2008

CIRCULATION LEGEND

I-405 SOUTH EXIT ATLANTIC AVE. OFF RAMP,
RIGHT ON ATLANTIC AVE.(SOUTH),
LEFT ON SPRING ST.(EAST),
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 SOUTH EXIT ORANGE ST. OFF RAMP,
RIGHT ON ORANGE ST.(SOUTH),
RIGHT ON SPRING ST.(WEST),
LEFT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 NORTH EXIT ORANGE ST. OFF RAMP,
LEFT ON EAST 32ND ST.(WEST)
LEFT ON ORANGE ST.(SOUTH)
RIGHT ON SPRING ST.(WEST),
LEFT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 NORTH EXIT ATLANTIC AVE. OFF RAMP
LEFT ON ATLANTIC AVE.(SOUTH)
LEFT ON SPRING ST.(EAST),
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

WILLOW AVE. WEST,
RIGHT ON CALIFORNIA AVE.(NORTH)
LEFT ON 28TH ST.(WEST)
ACCESS SITE

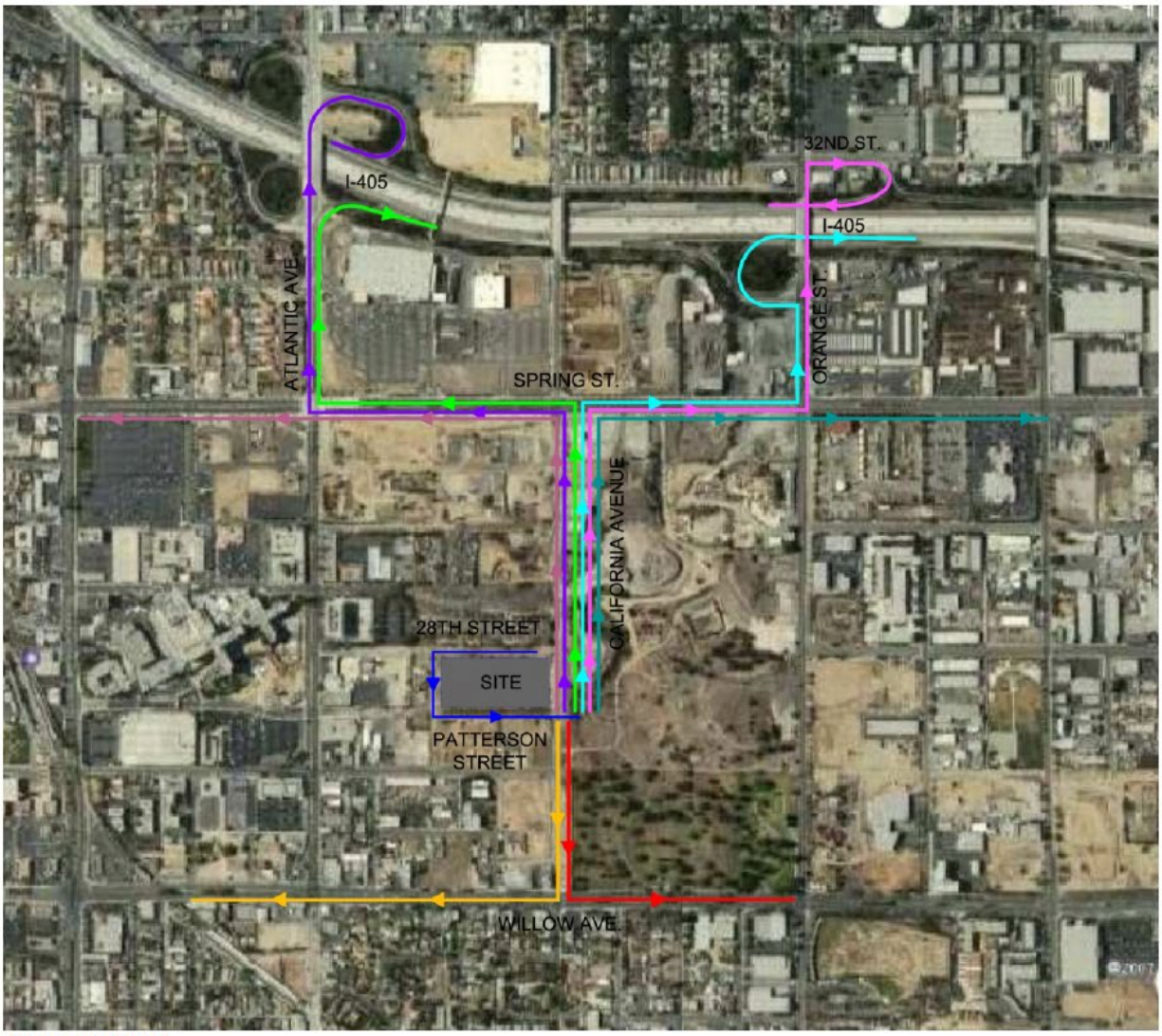
WILLOW AVE. EAST
LEFT ON CALIFORNIA AVE.(NORTH)
LEFT ON 28TH ST.(WEST)
ACCESS SITE

SPRING STREET HEADING EAST,
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

SPRING STREET HEADING WEST,
RIGHT ON CALIFORNIA ST.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

SITE CIRCULATION

Figure 2 Offsite Circulation: Arrival Routes



Source: JRM&A, 2008

CIRCULATION LEGEND

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST),
RIGHT AT ATLANTIC AVE(NORTH),
FAR RIGHT LANE TO I-405 SOUTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),
LEFT AT ORANGE ST.(NORTH),
LEFT TURN LANE TO I-405 SOUTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST),
RIGHT AT ATLANTIC AVE.(NORTH),
RIGHT LANE OVER BRIDGE
TO I-405 NORTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),
LEFT AT ORANGE ST.(NORTH),
RIGHT LANE TO EAST 32ND STREET,
TURN RIGHT(SOUTH) AT I-405 NORTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST).

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
RIGHT AT CALIFORNIA AVE.(SOUTH),
RIGHT AT WILLOW AVE.(WEST)

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
RIGHT AT CALIFORNIA AVE.(SOUTH),
LEFT AT WILLOW AVE.(EAST)

SITE CIRCULATION

Figure 3 Offsite Circulation: Departure Routes

1.1.2 Proposed Project

Since the issuance of the CUP in 2009, the continued growth in the region, as well as seasonal surges in the amount of waste generated, and increased public disposal (self-haulers) has increased. In addition, the Southeast Resource Recovery Facility (SERRF) in Long Beach will close on or about June 30, 2024. As such, upon closure of the SSERF, it is anticipated that a percentage of accepted materials that historically was delivered to the SERRF will instead be diverted to the Facility. Thus, the Project proposes to expand its current permitted tonnage limit of 1,500 to 2,500 (tpd).

The ability to safely and effectively operate at this threshold was demonstrated for over 27 months (November 11, 2020 through February 28, 2023) pursuant to Section 17210.3 and subsequently 17210.2(d) of the California Code of Regulations (CCR) Title 14, the LEA issued an emergency waiver(s) of terms and conditions of the EDCO Transport Services Sold Waste Facility Permit #19-AA-1112 during the declared State emergency, as result of the Coronavirus (COVID-19). These waivers were issued in 120-day increments on November 5, 2020, March 4, 2021, July 7, 2021, October 27, 2021, March 4, 2022, June 28, 2022, and again October 19, 2022, which allowed the Facility to operate at up to 2,500 tpd.

Since the design elements allow for up to 6,336 tpd of load out capacity, no physical changes to the Facility are necessary to accommodate the requested increase to a maximum of 2,500 tpd. In addition, the tipping floor can receive and store up to 3,644 tons of material.

This proposed modification would require an adjustment in the permitted vehicle traffic to the Facility as detailed further in the analysis below.

SECTION 2 Existing Conditions

2.1 Existing Operations

The operation of this Facility requires a Solid Waste Facility Permit (SWFP) issued from the Local Enforcement Agency (LEA) and concurred with by the State of California Department of Resources Recycling and Recovery (CalRecycle). The City of Signal Hill has designated the County of Los Angeles, Department of Public Health as its LEA. Accordingly, the current and valid operating permit, 19-AA-1112, is regulated by the County of Los Angeles, Department of Public Health, which serves as the regional regulatory arm of CalRecycle and is responsible for the monthly inspection of the Facility for conditions related to noise, odor, dust, traffic, vectors, and hazardous materials.

All materials entering the Facility are dumped on the concrete tipping floor located in the enclosed MRF/Transfer Station building. The Transfer Station tipping floor area is approximately 32,572 square feet (sqft). Designated recyclable material is dumped and stored along the west side of the building. Recyclable material that are floor-separated from the Transfer Station municipal solid waste piles are transferred to designated containers and bins located in the MRF. Once full, these materials are transported to secondary materials markets. Storage and transportation records are maintained in the main office building for auditing purposes. The Facility accepts the following types of materials:

- Municipal solid waste
- Residential
- Commercial
- Industrial
- Organics
- Residential curbside green waste and food waste
- Commercial green waste and food waste
- Recyclables
- Source separated, single stream recyclables
- Source separated commercial recyclables
- Construction and industrial recyclables
- Construction and demolition materials
- Self-haul
- Residential municipal solid waste
- Organics
- Construction and demolition materials

- Household Hazardous Waste
- Universal Waste
- Salvageable Items – The MRF accepts recyclable materials from residential, curbside and commercial recycling programs, and materials recovered from the Transfer Station municipal solid waste. Specifically, the following materials are accepted for separation and processing at the MRF:
- Newsprint
- Corrugated containers
- Plastic containers (California Redemption Value [CRV] and non-CRV)
- Mixed plastics
- Aluminum cans (CRV and non-CRV)
- High-grade paper
- Mixed paper (including junk mail)
- Styrofoam
- Ferrous and bi-metal containers
- Glass containers
- Aseptic cartons

The Facility will not accept the following types of materials:

- Non-Salvageable Items – The Facility does not accept for salvage any cosmetics, beverages, hazardous chemicals, poisons, pesticides or other materials capable of endangering public health.
- High Liquid Content Wastes – The Facility does not accept any publicly owned treatment works sludge or residuals. It also does not accept industrial wastewater treatment sludge, septic tank pumping, chemical toilet wastes or liquid wastes. The Facility does accept saturated waste less than 15% liquid content, as long as the liquid is non-hazardous.
- Designated Wastes – Designated wastes (profiled hazardous materials) are not accepted at the Facility.
- Hazardous Waste
- General – Other than household hazardous waste, no sludge, liquids, infectious, medical or hazardous materials are accepted at the Facility. The Hazardous Waste Exclusion and Hazardous Waste Storage Plan describe on-site procedures in the event that hazardous or infectious waste is discovered in the tipping area. These plans include procedures to identify the responsible collection vehicle and document the materials illegally disposed of at the Facility.
- Recovered hazardous or infectious materials are placed in a designated hazardous waste storage box (HWSB), located immediately inside the self-haul roll-up door (i.e., south roll-up door).

- HWSB is properly placarded and secured to prevent unauthorized access by employees or visitors. Materials stored in the HWSB are properly segregated by hazard classification and removed from the site by a licensed contractor within ninety (90) days, in accordance with federal and state regulations.
- Household Hazardous Wastes (HHW)
- The Facility maintains a PHHWCF sponsored by the City of Signal Hill in partnership with the County of Los Angeles Public Works Department. The PHHWCF is viewed as an added benefit of the site and environmental benefit to the surrounding community (NOTE: At this time, there is no active partnership agreement in place with EDCO, the City of Signal Hill and the County of Los Angeles Public Works Department).
- HHW is brought on-site to the PHHWCF and collected at its designated location by a qualified and trained attendant. This waste is stored in a locked storage area designed and constructed to store hazardous materials.
- The waste is disposed of by a licensed hazardous waste hauler to a permitted treatment, storage, recycling or disposal facility. All HHW is removed from the site within ninety (90) days of receipt or as required by Federal, State, and local regulatory agencies.
- Other Wastes Requiring Special Handling – The Facility does not accept any CalRecycle designated special wastes.

The MRF/Transfer Station is designed to process 6,336 tons per day (tpd). However, the current CUP limits the operational capacity to 1,500 tpd. Recently, the LEA issued an emergency waiver(s) of terms and conditions of the EDCO Transport Services Sold Waste Facility Permit #19-AA-1112 during the declared State emergency, as result of the Coronavirus (COVID-19). These waivers were issued in 120-day increments on November 5, 2020, March 4, 2021, July 7, 2021, October 27, 2021, March 4, 2022, June 28, 2022, and again October 19, 2022, which allowed the Facility to operate at up to 2,500 tpd.

Figure 4 depicts the existing service areas and schedule for collection trucks. The existing CUP mandates that all ingress and egress from the Facility shall follow the circulation routes depicted in **Figure 5** and that all trucks en route to and departing the Facility shall follow the off-site circulation routes depicted on **Figure 2** and **Figure 3** above. Further, the CUP requires that employee shifts are schedule so that employees do not arrive or depart during peak traffic hours as detailed in **Table 1.**

Table 1. Hourly Distribution of Vehicles (Existing Operations @ 1,500 tpd)

Time	Collection Trucks	Self-Haul Vehicles	Transfer Trucks	Staff Vehicles	Total Vehicles
10:00-11:00 PM	0	0	0	0	0
11:00-12:00 PM	0	0	0	0	0
12:00-1:00 AM	0	0	0	0	0
1:00-2:00 AM	0	0	0	0	0
2:00-3:00 AM	0	0	0	0	0
3:00-4:00 AM	0	0	4	2	6
4:00-5:00 AM	2	0	6	2	10
5:00-6:00 AM	5	0	6	21	32
6:00-7:00 AM	5	10	5	0	20
7:00-8:00 AM	10	15	4	0	29
8:00-9:00 AM	12	25	5	0	42
9:00-10:00 AM	20	30	5	0	55
10:00-11:00 AM	15	35	4	0	54
11:00-12:00 AM	12	45	4	0	61
12:00-1:00 PM	15	30	5	0	50
1:00-2:00 PM	15	35	5	2	57
2:00-3:00 PM	15	30	5	2	52
3:00-4:00 PM	15	25	5	21	66
4:00-5:00 PM	15	20	2	0	37
5:00-6:00 PM	10	0	2	0	12
6:00-7:00 PM	5	0	1	0	6
7:00-8:00 PM	0	0	0	0	0
8:00-9:00 PM	0	0	0	0	0
9:00-10:00 PM	0	0	0	0	0
TOTAL	**171**	**300**	**68**	**50**	**589**

Source: 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009)

Notes: Shading indicates peak traffic hours.

In general, the Facility plays a significant role in reducing both air emissions and vehicle miles traveled, primarily through the consolidation of loads. Benefits include, but are not limited to:

- Reducing overall community truck traffic by consolidating smaller loads into larger vehicles.
- Reducing air pollution, fuel consumption and road wear by consolidating loads into fewer vehicles.
- Allows for screening of waste for special handling.
- Offers residents a convenient drop-off of waste and recyclables and reduces the overall impact of miles driven to a landfill through load consolidation.

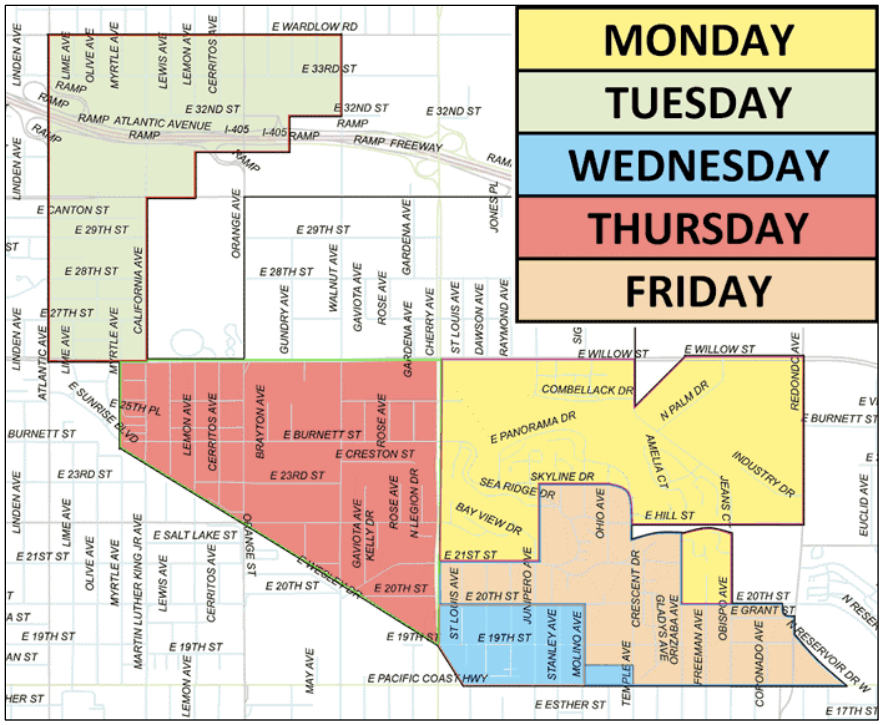


Figure 4 Collection Service Areas and Schedule.

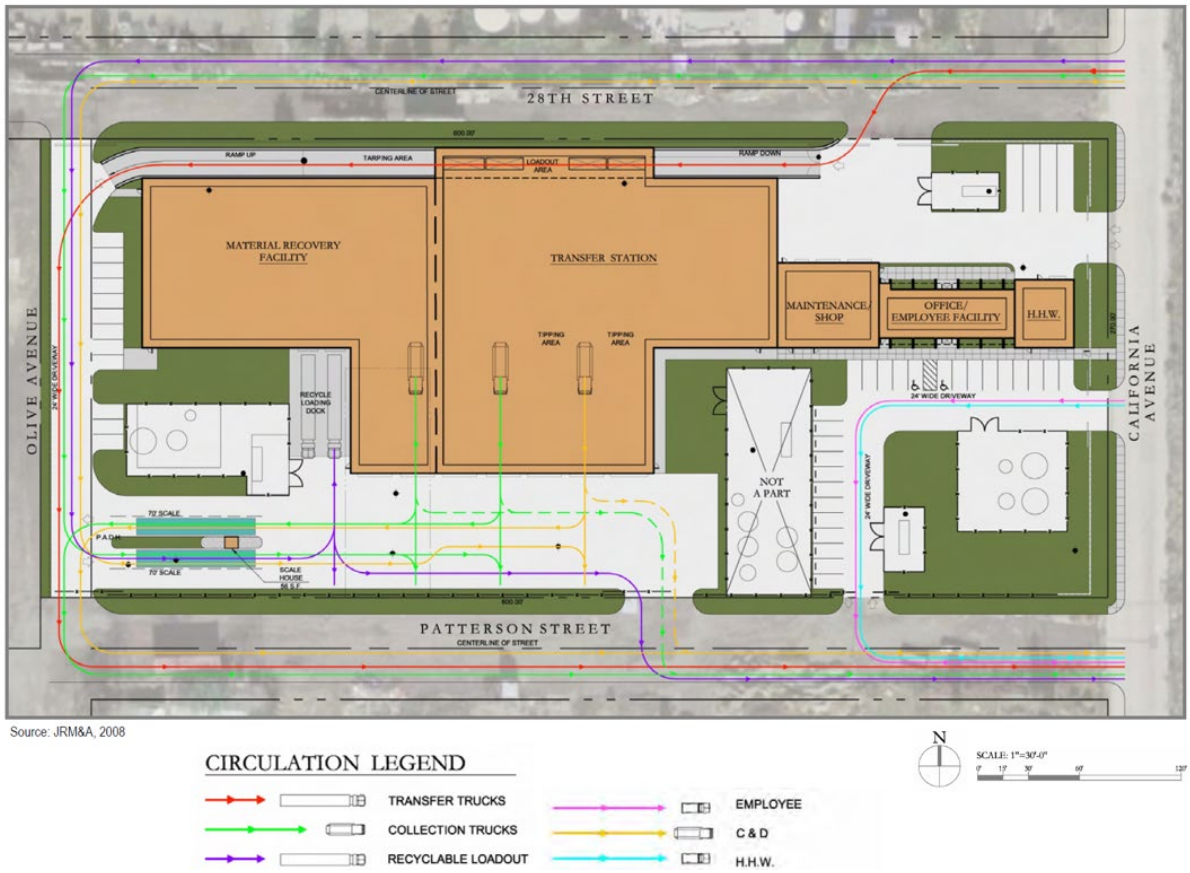


Figure 5 Project Site Access Circulation

2.2 Existing Roadway Network

As described in the Signal Hill Circulation Element (City of Signal Hill 2009), Signal Hill is completely surrounded by the city of Long Beach, and its transportation network. **Figure 6** shows major roadways in Signal Hill.

Note that the City has long contemplated widening California Street (Collector Street) in the Project Area and removing the barrio on 28th Street (Local Street) and paving it to the west as a through street to Atlantic Avenue. The City anticipates considering these and other transportation flow actions as part of the General Plan Circulation Element update, which is anticipated for 2025. If these local roadways are modified in the future as a result of the Circulation Element, the effects in the vicinity of the Facility would be modeled and evaluated at that time. The capacity expansion for the Facility does not require changes to the street pattern or circulation flow at this time.

2.2.1 Freeways

Freeways are controlled-access, high-speed roadways with grade-separated interchanges. They are intended to carry high volumes of traffic from region to region. The Facility is located about one mile south of Interstate 405 (San Diego Freeway), approximately one mile east of Interstate 710 (Long Beach Freeway)

- **Interstate 710**. The Long Beach Freeway (I-710) runs in the north/south direction, extending from Alhambra to Long Beach. At State Route 91, I-710 provides three lanes in each direction. I-710 is approximately 0.75 miles to the east of the Plan Area. Access to the Project area is provided by ramps at State Route 91, E. Artesia Boulevard and Long Beach Boulevard.
- **Interstate 405.** The San Diego Freeway (I-405) runs in the northwest/southeast direction, extending from the Westside of Los Angeles County to Orange County. At Santa Fe Avenue, I-405 provides five lanes in each direction. Interchanges providing access to the Project area include Santa Fe Avenue and Alameda Street.

2.2.2 Principal Arterials

Principal Arterials (equivalent to the FHWA's "Other Principal Arterial" classification) are important city and intercommunity routes. Principal Arterials have a minimum 100- to 110-foot right-of-way width with four moving travel lanes and a painted or raised median. Principal Arterials support the heaviest traffic volumes of all the roadway classifications, and can support a maximum Average Daily Trip (ADT) rate of 33,000 vehicles at a Level of Service (LOS) D. Principal Arterials in the Project area include:

- **Pacific Coast Highway (PCH; SR-1)** is a six-lane divided roadway from the southern limit of E 19th Street to the limits of Village way to the west spanning the length of the southern city boundary. The City of Signal Hill General Plan classifies PCH as a Principal Arterial (100 to 110-foot right-of-way). Seven Signal Hill bus stops exist along the PCH. There is a planned Class III bike route (shared use with pedestrian or motor vehicle traffic) spanning the length of the southern city boundary.
- **Orange Avenue** is a two to four-lane divided roadway north of Hill Street and a two to four-lane undivided roadway south of Hill Street. Orange Avenue is classified as a Principal Arterial (100-

110 foot right-of-way) in the City of Signal Hill General Plan. On-street parking is prohibited north of Willow Street. On-street parking is generally permitted on the southbound side between Willow Street and Burnett Street and generally permitted on both sides south of Burnett Street. Dedicated Class II (marked/on-street) bicycle lanes are provided south of Pacific Coast Highway. Sidewalks are generally provided on both sides of the roadway except between Spring Street and Willow Street.

- **Spring Street** is a six lane divided roadway in the project vicinity. Willow Street is classified as a Principal Arterial (100-110 foot right-of-way) roadway in the City of Signal Hill General Plan. On-street parking is prohibited; there are no dedicated bicycle lanes west of Orange Avenue. Sidewalks are currently provided on both sides of the roadway within the study area.
- **Willow Street** is a four-lane divided roadway in the project vicinity. Willow Street is classified as a Principal Arterial (100-110 foot right-of-way) roadway in the City of Signal Hill General Plan. On-street parking is prohibited; there are no dedicated bicycle lanes in the project vicinity. Sidewalks are currently provided on both sides of the roadway within the general Project area except for portion along of the westbound approach at Walnut Avenue.
- **Atlantic Avenue** is at the City of Signal Hill boundary, within the City of Long Beach and is classified as a "Major Avenue" in the City of Long Beach General Plan (80-100 foot right-of-way). On-street parking is generally permitted on the southbound side between Willow Street and Spring Street. Sidwalks are currently provided on both sides of the roadway between 29th Street and Willow Street and intermittent above 29th Street.

2.2.3 Minor Arterial

Minor Arterials serve traffic traveling to local destinations, tying together the various parts of the city and connecting it to nearby areas. Minor Arterials have a minimum 80-foot right-of-way width with four travel lanes and a painted median. These roadways support a maximum ADT of 12,500 vehicles at an LOS D. There are no Minor Arterials in the Project area.

2.2.4 Collector Streets

Collector Streets collect local traffic from residential neighborhoods and commercial and industrial areas and feed the traffic to Minor and Principal Arterials. Collector Streets have a 60- to 70-foot right-of-way with two travel lanes and two parking lanes, where parking is feasible. Collector Streets with 70-foot rights-of-way may also include a painted median. This painted median increases roadway safety and improves efficiency by limiting the number of left-turning cars that queue in travel lanes; for that reason, the 70-foot right-of-way is preferred. However, where physical or environmental factors limit roadway width, a 60-foot right-of-way is permissible. Collector Streets generally carry fewer vehicles than Minor Arterials. Collector Streets in the Project area include:

- **California Avenue** is a two-lane roadway oriented in the north-south direction. The roadway lies within the City of Signal Hill adjacent to the subject area and is designated in the City of Signal Hill Circulation Element as a Collector Street with a 70-foot right-of-way requirement. Parking is not permitted on either side of this roadway within the vicinity of the Project.

2.2.5 Local Streets

The Local Street classification includes all roadways and streets not otherwise classified. These are generally 60-foot-wide rights-of-way with two travel lanes and two parking lanes where feasible, but there are several variations in roadway width. These variations are found in both older neighborhoods and in newer areas, particularly those with private streets. Local Streets are designed to serve individual properties and provide access from residential neighborhoods to Collector Streets. Local Streets include private streets owned and maintained by homeowners' associations. Local Streets carry the lowest traffic volumes of all streets in the city; most traffic on these streets is accessing local destinations, rather than passing through. Through the specific plan process, the city has approved a variety of private street configurations, including rights-of-way less than 60 feet wide. 28th Street and Patterson Street provide access to the Project site. Currently, as allowed by Condition 18 of the Facility's current CUP, occasional queuing of transfer and collection trucks takes place on 28th Street. As detailed in Table 1, transfer trucks currently arrive between the hours of 3:00 AM and 4:00 PM.

2.2.6 Existing Designated Truck Routes

The City of Signal Hill has designated Truck Routes, intended to keep large trucks (i.e., weighing more than three tons) off local residential streets. Trucks must remain on the routes when driving through the City, although drivers may leave designated truck routes for deliveries or pick-ups. Local truck routes designated by the City of Signal Hill are shown in **Figure 7**.

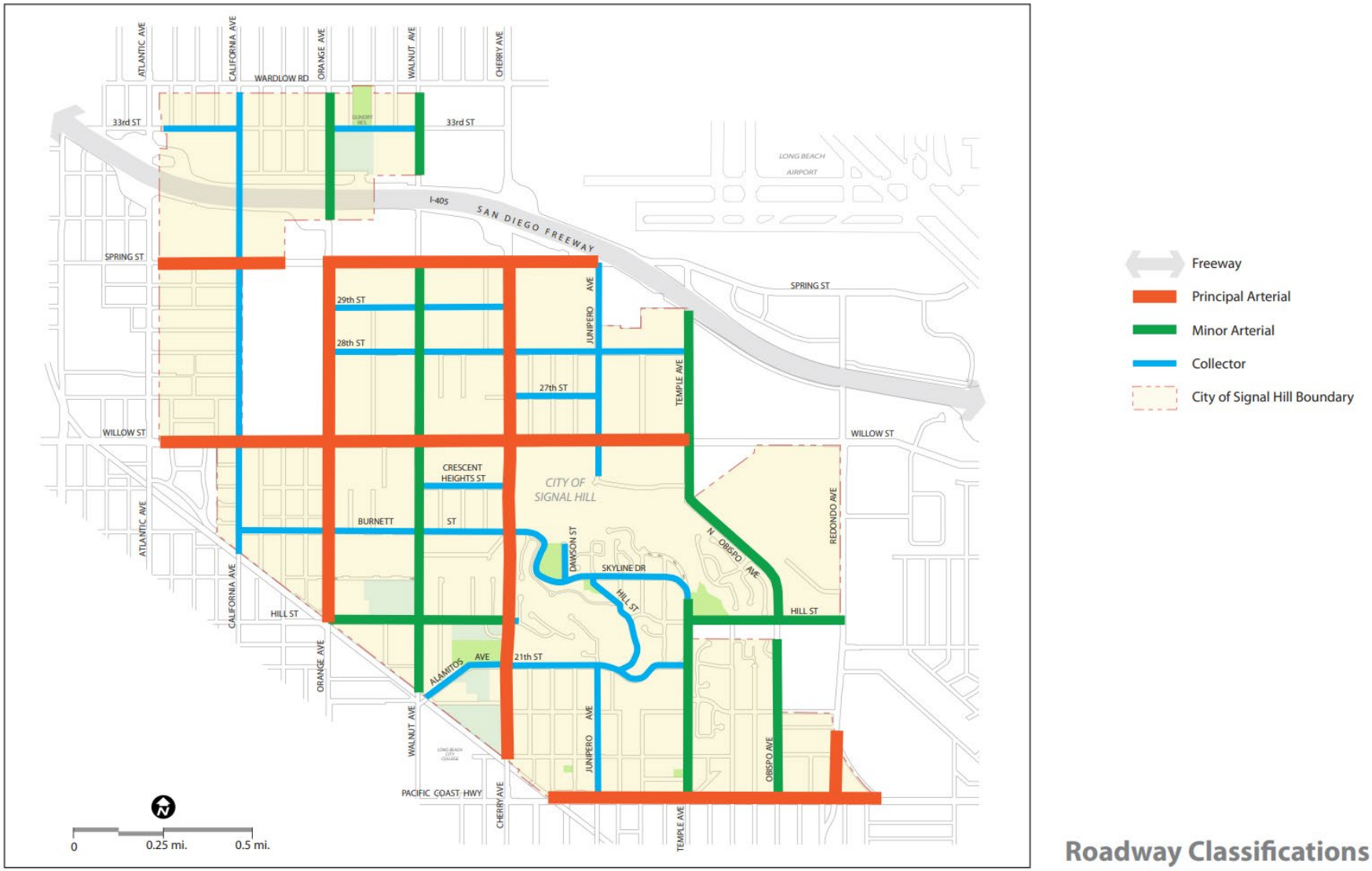


Figure 6. Regional Network in Project Area

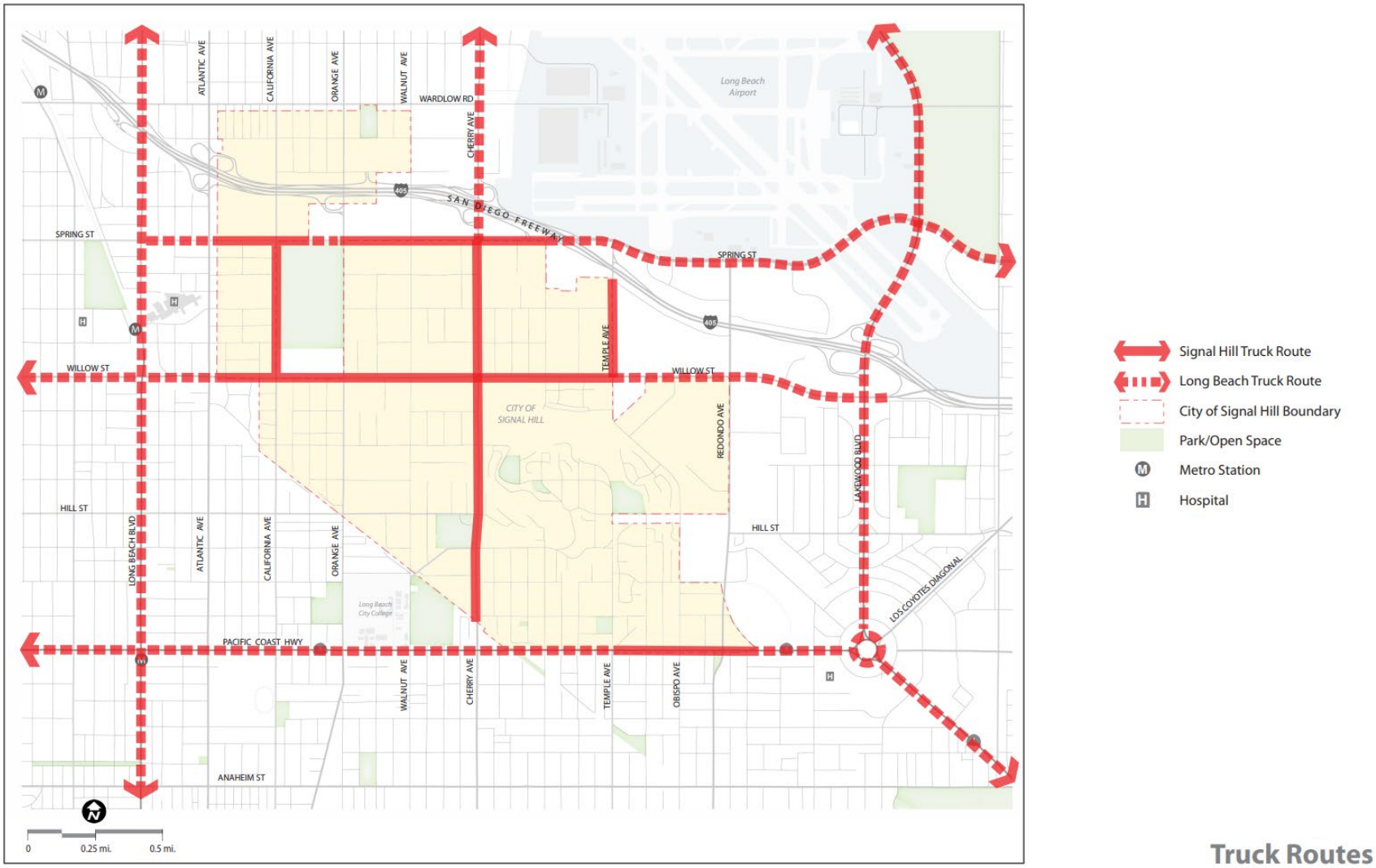


Figure 7. Designated Truck Routes

2.3 Transit Network

Services provided by Long Beach Transit and Metro operate within or in the Project area; additional bus lines are accessible through the nearby Long Beach Transit Mall. Long Beach Transit is the primary public transportation provider to Signal Hill. It is a municipal transit agency operated on behalf of the City of Long Beach by a nonprofit corporation, the Long Beach Public Transportation Company. In 2007, Long Beach Transit operated a total of 249 buses on 38 bus routes, providing over 26.6 million passenger trips. Service is provided from approximately 4:30 am to 1:30 am, seven days per week. Long Beach Transit is currently in the process of upgrading its bus stops with satellite-controlled bus tracking technology known as "TranSmart." TranSmart-equipped stops provide real-time updates on routes and arrival times. Currently, only the stop at the southwest corner of Cherry Avenue and Willow Street has been upgraded; no schedule for improvements to the remaining stops within Signal Hill is currently available. Several Long Beach Transit routes serve the Project sites, including: Routes 71/72 along Orange Avenue, Routes 21/22 along Cherry Avenue, and Route 102/104 along Willow Street.

2.4 Existing Bikeway Network

Prior to the update of the City's General Plan Circulation Element there were no bikeways designated within the City. With the update in 2009, approximately 5.5 miles of bikeways along a number of routes are planned. These bikeways fall into three classes, as defined by Caltrans:

- Class I (Bike Path) Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized.
- Class II (Bike Lane) Provides a striped land for one-way bike travel on a street or highway.
- Class III (Bike Route) Provides for shared use with pedestrian or motor vehicle traffic.

Bikeways provide and encourage an alternative to the use of automobiles. Bikeways are intended to link living, working, shopping, educational, and recreational locations. The bikeways currently proposed serve a number of purposes:

- East-west routes provide access to destinations such as light rail stations, schools, CSULB, Long Beach City College, Long Beach Memorial Medical Center, and shopping centers along Atlantic and Long Beach Boulevards. Recently-widened Spring Street offers adequate space for an on-street bike lane along much of its right-of-way in the city.
- North-south routes provide access to destinations such as schools, commercial centers along Pacific Coast Highway, regional bus lines operating on 7th Street, Downtown Long Beach, beaches, civic and arts facilities, and hospitals.
- The route along Temple Street/Skyline Drive/Burnett Street provides panoramic skyline views and is heavily utilized by pedestrians.
- The route along the former Pacific Electric Railway right-of-way provides an off-street bikeway that shortens the distance for travel in a northwest-southeast direction, providing direct access from the Willow Street Blue Line Station to Long Beach City College. This bikeway is located in the city of Long Beach, along its border with Signal Hill.

The Circulation Element recommended that new bikeways should be considered by the City, particularly when they would connect with existing or proposed bikeways in the city of Long Beach. Traffic volumes and characteristics along potential routes must be considered, along with traffic safety and grade issues.

SECTION 3 Project Trip Generation

3.1 Operation Trips

A variety of different types of vehicles utilize the Facility, but they are primarily broken into three categories: collection trucks, transfer tractor/trailers and self-haul/employee vehicles. The Facility is currently permitted for a maximum daily capacity of 1,500 tpd. Using this baseline number, the following assumptions are used to generate the type and number of vehicles anticipated to enter the facility:

- 1,500 tpd of municipal solid waste and recyclable materials.
- Solid waste collection trucks have an average capacity of 7 tons.
- Residual waste transfer trucks (including recyclable materials) have an average capacity of 22 tons.
- Self-haul vehicles have an average of 1 ton.

While the Facility is designed for a maximum daily capacity of 6,336 tpd over a 24-hour period, the 2009 *EDCO Recycling and Transfer Facility Final Environmental Impact Report* (FEIR) (State Clearinghouse SCH # 2008081009), considered a maximum of 1,500 tpd. Using the permitted capacity of 1,500 tpd as a baseline number, the estimated number of commercial trucks accessing the Facility are approximately 239 (171 collection vehicles, 68 transfer tractor trailers) and 350 self-haul/employee passenger vehicles per day. The estimated number of trips required for a permitted capacity of 2,500 tpd is assumed to increase linearly in relation to the baseline number of vehicles accessing the site. Accordingly, **Table 2** provides a summary of the assumed existing trips, estimated trips, and change in trips from existing conditions under the proposed Project.

Table 2. Trip Generation Summary (Existing versus Proposed Project)

Vehicle Type	Existing (@1,500 tpd)		Project (@2,500 tpd)		Change from Existing
	Vehicles Accessing Facility[1]	ADT (trips/day)[1]	Vehicles Accessing Facility	ADT (trips/day)	ADT (trips/day)
Collection Trucks	171	342	285	570	228
Transfer Trucks	68	136	113	226	90
Self-Haul (Passenger Vehicles)	300	600	500	1,000	400
Employee (Passenger Vehicles)	50	100	100	200	100
TOTAL	**589**	**1,178**	**998**	**1,996**	**818**

Notes:

[1] As reported in 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009)

The peak hour trip generation for the Project summarized in **Table 3** is based on the hourly trip generation rates for existing operations with trips associated with expanded operations proposed under the Project scaled proportionately for the processing of the additional 1,000 tpd.

Table 3. Hourly Distribution of Vehicles (Project Operations)

Time	Collection Trucks	Self-Haul Vehicles	Transfer Trucks	Staff Vehicles	Total Vehicles
10:00-11:00 PM	0	0	1	0	1
11:00-12:00 PM	0	0	1	0	1
12:00-1:00 AM	0	0	1	0	1
1:00-2:00 AM	0	0	1	0	1
2:00-3:00 AM	0	0	1	0	1
3:00-4:00 AM	0	0	3	2	5
4:00-5:00 AM	3	0	3	2	8
5:00-6:00 AM	6	0	3	21	30
6:00-7:00 AM	6	7	3	0	16
7:00-8:00 AM	7	10	2	0	19
8:00-9:00 AM	6	17	1	0	24
9:00-10:00 AM	10	20	2	0	32
10:00-11:00 AM	10	23	3	0	36
11:00-12:00 AM	10	30	3	0	43
12:00-1:00 PM	10	20	3	0	33
1:00-2:00 PM	10	23	3	2	38
2:00-3:00 PM	10	20	3	2	35
3:00-4:00 PM	10	17	2	21	50
4:00-5:00 PM	6	13	1	0	20
5:00-6:00 PM	6	0	1	0	7
6:00-7:00 PM	4	0	1	0	5
7:00-8:00 PM	0	0	1	0	1
8:00-9:00 PM	0	0	1	0	1
9:00-10:00 PM	0	0	1	0	1
TOTAL	**114**	**200**	**45**	**50**	**408**

Source: EDCO Signal Hill 2024

Notes:

Shading indicates peak traffic hours.

For an analysis of peak hour trips, a Passenger Car Equivalence (PCE) factor of 2.0 is applied to each truck trip to account for the effects of these heavy vehicles within the traffic stream on flat terrain. **Table 4** summarizes the Project-related trip generation with the PCE factor.

Table 4. Project Peak Hour PCE Trip Generation Summary

Vehicle Type	PCE	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Collection Trucks	2.0	12	12	24	12	12	24
Transfer Trucks	2.0	2	2	4	2	2	4
Self-Hauler	1.0	17	17	34	13	13	26
Employee	1.0	0	0	0	0	0	0
TOTAL		**31**	**31**	**62**	**27**	**27**	**54**

Based on the off-site circulation routes as required by the CUP (refer to **Figure 2** and **Figure 3** above), ten intersections have been included in the traffic impact analysis for the AM and PM peak hours. These intersections are summarized in **Table 5** and illustrated in **Figure 8**.

Table 5. Key Intersections and Existing (Year 2018) Peak Hour LOS

Key Intersection	Time Period	Existing LOS
1. Atlantic Avenue and I-405 Northbound	AM PM	A C
2. Atlantic Avenue and I-405 Southbound	AM PM	A A
3. Atlantic Avenue and Spring Street	AM PM	C D
4. California Avenue and Spring Street	AM PM	A C
5. California Avenue and Willow Street	AM PM	B A
6. Orange Avenue and 32nd Street	AM PM	C D
7. I-405 Northbound and 32nd Street	AM PM	B B
8. Orange Avenue and I-405 Southbound	AM PM	E F
9. Orange Avenue and Spring Street	AM PM	D D
10. Cherry Avenue and Spring Street	AM PM	B C

Source: City of Long Beach 2020a

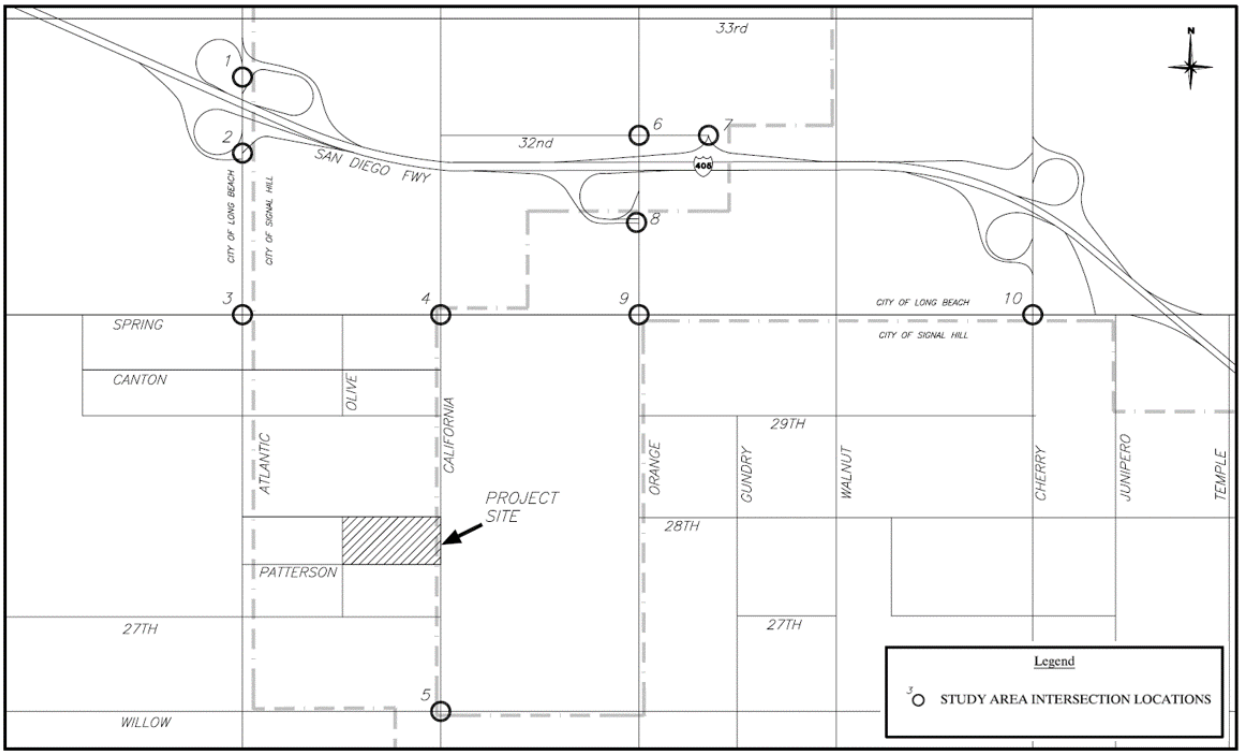


Figure 8. Study Area Intersection Locations

As noted above, the collection trucks and transfer trucks will be restricted to specific routes with approximately 40 percent of trips oriented towards the I-405 Freeway. **Figure 9** illustrates the general truck distribution. Self-haul vehicles and employee vehicles will not be restricted to assigned routes and are distributed based on levels and locations of development in relation to the location of the Facility. **Figure 10** illustrates the general distribution of self-haul vehicles and employees.

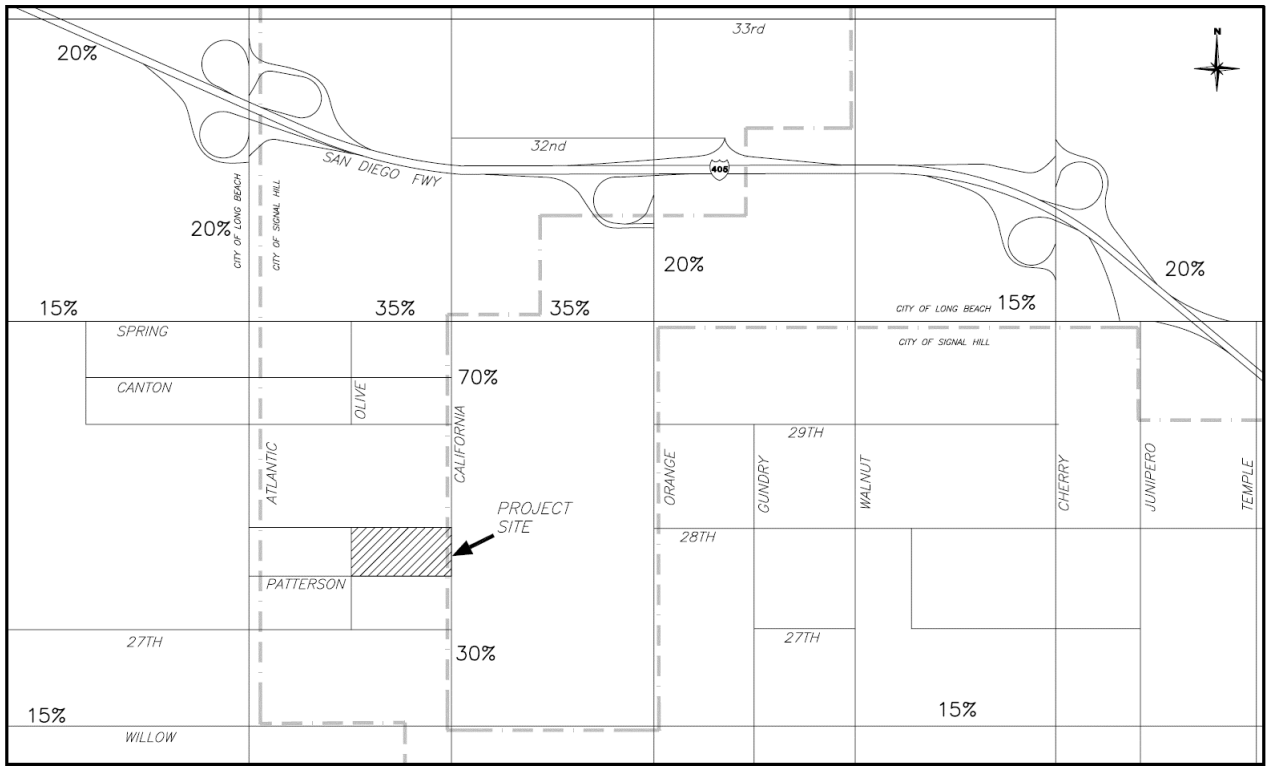


Figure 9. General Project Trip Distribution - Trucks

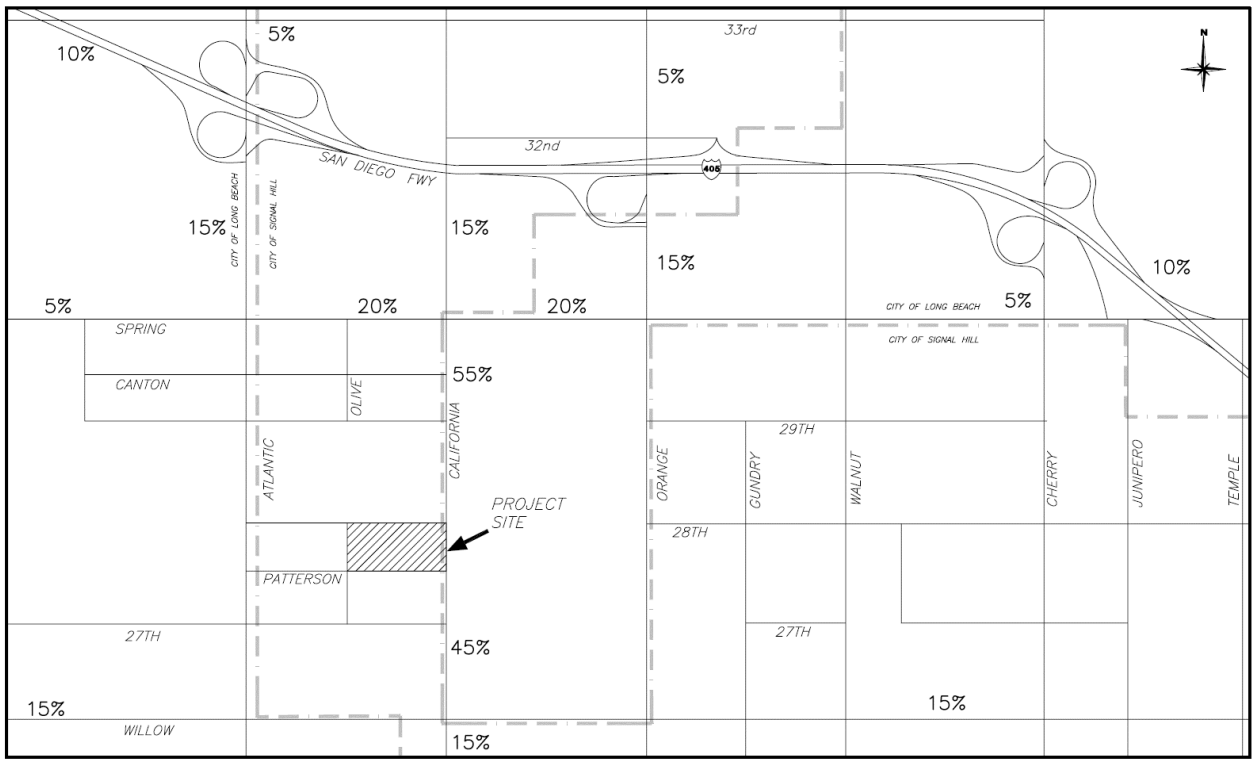


Figure 10. General Project Trip Distribution – Self-Haul and Employee Vehicles

Assuming the anticipated trip distribution rates illustrated in **Figure 9** and **Figure 10**, the maximum number of PCE vehicles at an intersection traveling in any given direction is estimated at 19 PCE vehicles during the AM peak hour (i.e., leaving the site heading north on California Avenue). From the intersection at California Avenue and Spring Street, Project-related PCE vehicle trips are dispersed among the proximate intersections. The most impacted intersection (i.e., most severe congestion with LOS E or F) is identified at Orange Avenue and Spring Street. At this intersection, the maximum number of PCE vehicles traveling in any given direction is estimated at 5 PCE vehicles during AM or PM peak hours. Per City of Long Beach guidelines (2020b), if an intersection operates at LOS E or F without the project and the project increases average control delay at the intersection by 2.5 seconds or more, the addition of project traffic would be responsible for LOS deficiencies. Given existing traffic volumes, the limited number of PCE vehicles during peak hour travel times would not be expected to increase the average control delay at any intersection by 2.5 seconds or more or reduce the LOS at key intersections.

Currently, as allowed by Condition 18 of the Facility's current CUP, occasional queuing of transfer and collection trucks takes place on 28th Street. As detailed in Table 1, transfer trucks currently arrive between the hours of 3:00 AM and 4:00 PM. To reduce the potential of additional queuing as a result of the proposed Project, EDCO will distribute transfer truck arrivals over a full 24-hour day so that no more than 3 additional transfer trucks are expected in any given hour (refer to Table 3). In addition, consistent with existing operations, EDCO would continue to employ spotters to manage truck traffic and further reduce the potential for excessive queuing on 28th Street.

3.2 VMT Analysis

The purpose of this Vehicle Miles Traveled (VMT) analysis is to evaluate the Project based on Senate Bill 743 (SB 743) requirements consistent with the *Technical Advisory on Evaluating Transportation Impacts In California Environmental Quality Act* (CEQA), December 2018, prepared by the State of California Governor's Office of Planning and Research (OPR). The OPR Technical Advisory provides project screening criteria and guidance for analysis of VMT assessments under SB 743. It should be noted that "goods movement" (i.e., heavy truck trips) is not subject to VMT analysis per OPR guidelines. While heavy truck trips generated by industrial activity (i.e., the Project's collection truck and transfer tractor/trailer trips) are outside SB 743 regulation, passenger vehicle trips generated by employees and self-haul are subject to VMT standards. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled. Lead agencies are allowed to continue using their current impact criteria, or to opt into the revised transportation guidelines. The City of Signal Hill has yet to adopt criteria for evaluating VMT impacts under CEQA. However, it is our understanding that the City of Signal Hill may likely utilize criteria consistent with the OPR Technical Advisory, and may be open to considering the criteria which has been adopted by neighboring jurisdiction of the City of Long Beach. Note that OPR does not recommend a VMT specific threshold of significance for institutional projects. However, the City of Long Beach has developed *Traffic Impact Analysis Guidelines* (2020b) and *CEQA Transportation Thresholds of Significance Guide* (2020c) consistent with the OPR Technical Advisory. The City of Long Beach Guide specifies that:

> "*The development of institutional/government and public service uses that support community health, safety, and welfare will be presumed to have a less than significant transportation impact related to CEQA Guidelines Section 15064.3, subdivision (b). These*

facilities (e.g., police stations, fire stations, community centers, refuse stations) are already part of the community and, as public service uses, their VMT is accounted for in the existing regional average."

Note that the Project consists of an expansion of capacity at the existing institutional (i.e., refuse management) facility, and does not include changes to the existing land use or conflict with the City of Signal Hill General Plan Land Use Element. To demonstrate that the proposed Project would have a less than significant impact on regional VMT, the VMT per employee associated with the expanded operations has been estimated as compared to the regional average VMT per employee. The regional average VMT per employee for Los Angeles County is 18.5 miles/day/employee (City of Long Beach 2020c).

Table 6. Project Passenger Vehicle VMT Summary

Vehicle Type	One-Way Trip Length (miles)[1]	Project ADT (trips/day)	Project Daily VMT (miles/day)
Self-Haul (Passenger Vehicles)	10	400	4,000
Employee (Passenger Vehicles)	20	100	2,000
		TOTAL VMT	**6,000**

Notes:

[1] Trip length as cited in the 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009).

To account for the additional passenger vehicle trips associated with self-haul deliveries, the self-haul drivers are considered "employees" in addition to 50 additional employees associated with expanded operations at the Facility, for a total of 350 employees. As shown in **Table 6**, the total passenger vehicle VMT associated with the Project would be 6,000 miles/day. Accordingly, the Project-related VMT per employee would be 17.1 miles/day/employee, which is less than the regional average VMT per employee of 18.5 miles/day/employee. Thus, the Project would be consistent with the presumption of the City of Long Beach Guide for institutional projects and would not have a significant impact relative to VMT.

SECTION 4 Conclusions

Based on the Project trip and VMT Analysis and the screening thresholds of the Los Angeles County Guidelines and Long Beach Transportation Impact Guidelines, the project meets the VMT per employee screening criteria institutional projects. Therefore, the proposed Project meets the applicable screening criteria which allows a determination of a less-than-significant impact on VMT. The Project would generate a total of 62 AM Peak Hour PCE trips and 54 PM Peak Hour PCE trips. Based on existing traffic volumes on adjacent roadways, and assuming the assumed distribution of trips on local roadways (refer to **Figure 9** and **Figure 10**), peak-hour traffic would not be significantly delayed with the addition of Project-generated traffic and the Project would not reduce the LOS at key intersections.

SECTION 5 References

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Appendix D Air Quality and Greenhouse Gas Impact Analysis and Technical Report

Air Quality and Greenhouse Gas Technical Report

EDCO Expansion Project
Signal Hill, California

Prepared for: City of Signal Hill

May 8, 2024

Innovative solutions for a complex world

Catalyst ENVIRONMENTAL SOLUTIONS

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SECTION 1 Introduction

Catalyst Environmental Solutions Corporation (Catalyst) has prepared this report to evaluate the potential for impacts related to air quality and greenhouse gas (GHG) resulting from proposed expansion of operations at the EDCO Recycling and Transfer Material Recovery Facility (Facility) in the City of Signal Hill, California. This report includes an evaluation of potential impacts associated with the permanent increase in operational air emissions and whether Project-induced emissions are in excess of standards established by the applicable local jurisdiction (i.e., South Coast Air Quality Management District). Site-specific operations activity information used for air emissions models and estimates are based on information provided by EDCO Signal Hill.

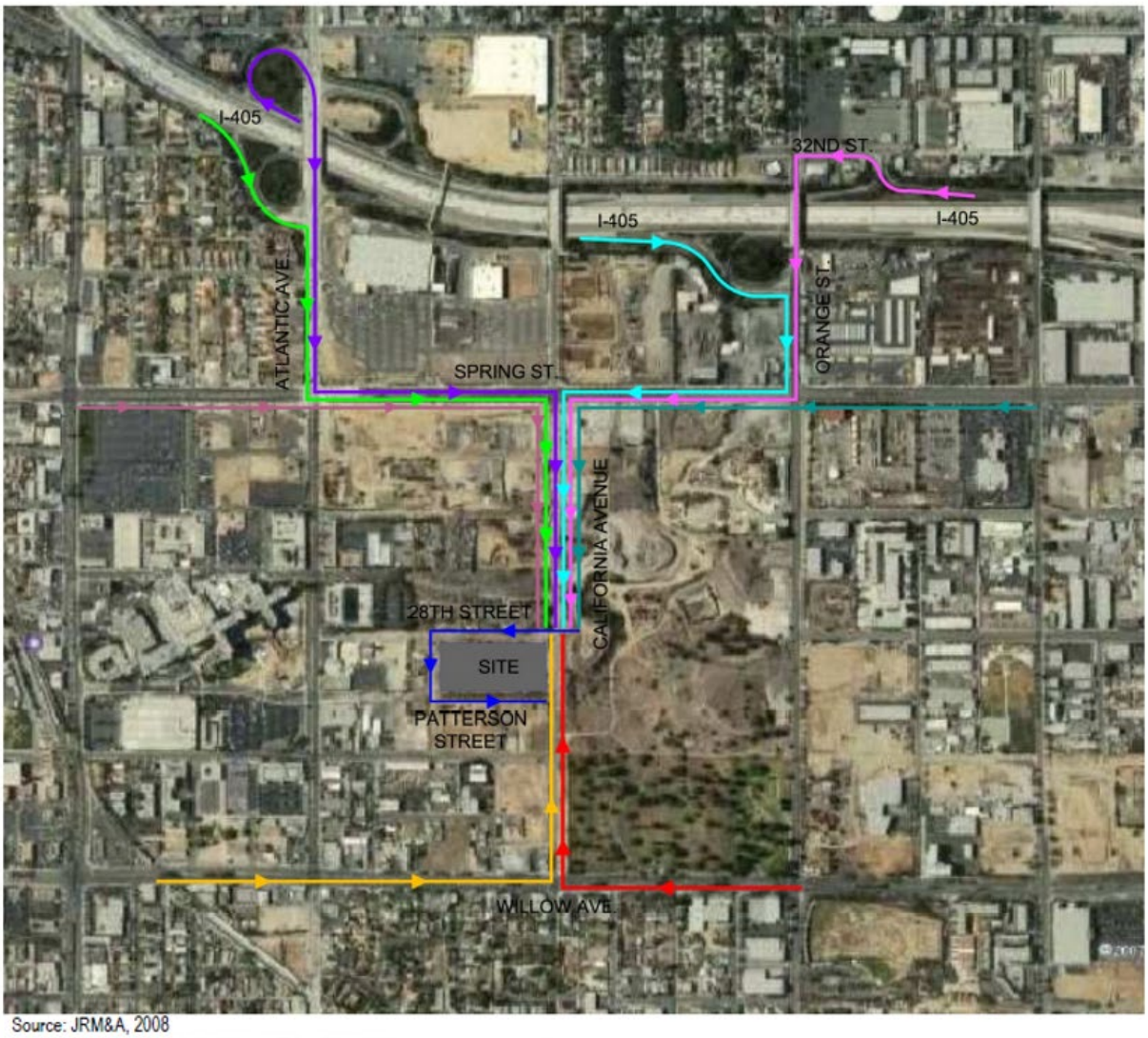
1.1 Existing Operations

The Facility is owned and operated by EDCO Transport Services and is located on privately owned land. The Facility is a 3.75-acre site located at 2755 California Avenue, Signal Hill, California (**Figure 1**). The Facility's Assessor's Parcel Number (APN) is 7207-022-043 in Township 4 South, Range 12 West. The site is zoned as General Industrial Specific Plan (SP-19) with the Facility currently operating in Area 3 of the SP-19 under Conditional Use Permit 09-01 granted on February 17, 2009.

The activities of the Facility include the manual sorting and transfer of residential, commercial and industrial refuse, transfer of self-haul public refuse, processing of materials collected by curbside recycling programs, a public drop-off area for recyclable materials, and a Permanent Household Hazardous Waste Collection Facility (PHHWCF). Once offloaded inside the Facility, waste is loaded into transfer trucks and then transported to a permitted landfill.

Access to the Facility is from California Avenue and 28th Street. The primary route of delivery to the Facility traveling south on Interstate 405 (I-405) is exit to Atlantic Avenue. Proceed south on Atlantic Avenue and turn east onto Spring Street. Proceed east on Spring Street and turn south onto California Avenue. Then proceed south on California Avenue to 28th Street and turn west to access Facility. The primary route of delivery to the Facility traveling north on I-405 is exit Orange Avenue off ramp, turn west onto East 32nd Street and proceed to Orange Avenue. Turn south on Orange Avenue, continue to Spring Street, turn west and then proceed to California Avenue and turn south. After turning onto California Avenue, proceed to 28th Street and turn west to access the site. Arrival and departure routes are illustrated in **Figure 2** and **Figure 3**, respectively.

Figure 1. Project Site



Source: JRM&A, 2008

CIRCULATION LEGEND

I-405 SOUTH EXIT ATLANTIC AVE. OFF RAMP,
RIGHT ON ATLANTIC AVE.(SOUTH),
LEFT ON SPRING ST.(EAST),
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 SOUTH EXIT ORANGE ST. OFF RAMP,
RIGHT ON ORANGE ST.(SOUTH),
RIGHT ON SPRING ST.(WEST),
LEFT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 NORTH EXIT ORANGE ST. OFF RAMP,
LEFT ON EAST 32ND ST.(WEST)
LEFT ON ORANGE ST.(SOUTH)
RIGHT ON SPRING ST.(WEST),
LEFT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 NORTH EXIT ATLANTIC AVE. OFF RAMP
LEFT ON ATLANTIC AVE.(SOUTH)
LEFT ON SPRING ST.(EAST),
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

WILLOW AVE. WEST,
RIGHT ON CALIFORNIA AVE.(NORTH)
LEFT ON 28TH ST.(WEST)
ACCESS SITE

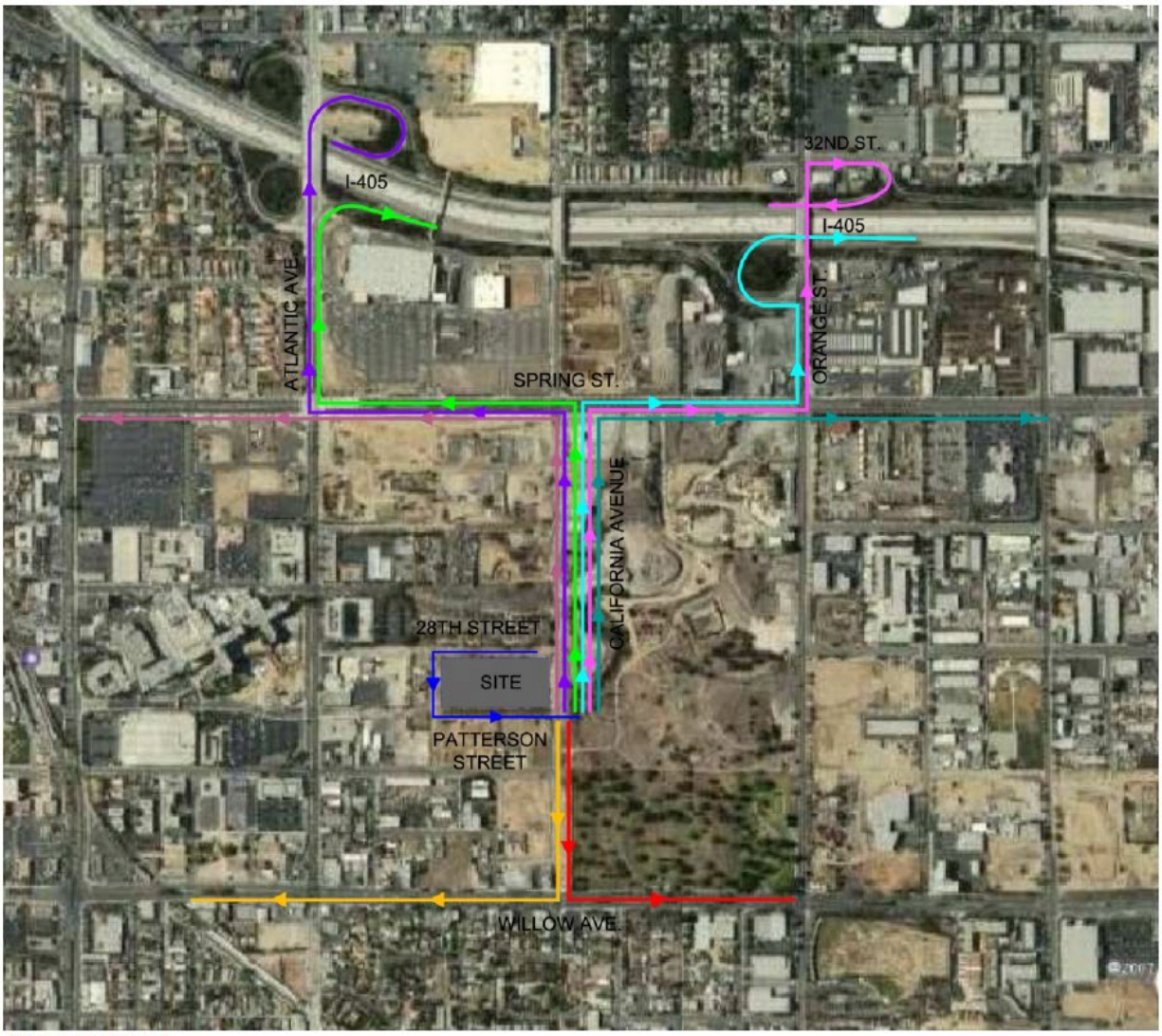
WILLOW AVE. EAST
LEFT ON CALIFORNIA AVE.(NORTH)
LEFT ON 28TH ST.(WEST)
ACCESS SITE

SPRING STREET HEADING EAST,
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

SPRING STREET HEADING WEST,
RIGHT ON CALIFORNIA ST.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

SITE CIRCULATION

Figure 2. Offsite Circulation: Arrival Routes



Source: JRM&A, 2008

CIRCULATION LEGEND

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST),
RIGHT AT ATLANTIC AVE(NORTH),
FAR RIGHT LANE TO I-405 SOUTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),
LEFT AT ORANGE ST.(NORTH),
LEFT TURN LANE TO I-405 SOUTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST),
RIGHT AT ATLANTIC AVE.(NORTH),
RIGHT LANE OVER BRIDGE
TO I-405 NORTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),
LEFT AT ORANGE ST.(NORTH),
RIGHT LANE TO EAST 32ND STREET,
TURN RIGHT(SOUTH) AT I-405 NORTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST).

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
RIGHT AT CALIFORNIA AVE.(SOUTH),
RIGHT AT WILLOW AVE.(WEST)

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
RIGHT AT CALIFORNIA AVE.(SOUTH),
LEFT AT WILLOW AVE.(EAST)

SITE CIRCULATION

Figure 3. Offsite Circulation: Departure Routes

The operation of this Facility requires a Solid Waste Facility Permit (SWFP) issued from the Local Enforcement Agency (LEA) and concurred with by the State of California Department of Resources Recycling and Recovery (CalRecycle). The City of Signal Hill has designated the County of Los Angeles, Department of Public Health as its LEA. Accordingly, the current and valid operating permit, 19-AA-1112, is regulated by the County of Los Angeles, Department of Public Health, which serves as the regional regulatory arm of CalRecycle and is responsible for the monthly inspection of the Facility for conditions related to noise, odor, dust, traffic, vectors, and hazardous materials.

All materials entering the Facility are dumped on the concrete tipping floor located in the enclosed Facility building. The Transfer Station tipping floor area is approximately 32,572 square feet (sqft). Designated recyclable material is dumped and stored along the west side of the building. Recyclable material that are floor-separated from the Transfer Station municipal solid waste piles are transferred to designated containers and bins located in the Facility. Once full, these materials are transported to secondary materials markets. Storage and transportation records are maintained in the main office building for auditing purposes. **Table 1** lists the materials accepted for disposal at the EDCO Facility. **Table 2** lists the materials that are not accepted at the EDCO Facility.

Table 1. Materials Accepted for Disposal at the EDCO Facility

Material Category	Items Accepted
Municipal solid waste	Residential, Commercial, Industrial
Organics	Residential curbside and commercial green waste and food waste
Recyclables	Source separated, single stream and commercial recyclables, Construction and industrial recyclables
Construction and demolition materials	All
Self-haul	All
Household Hazardous Waste (The Facility only accepts HHW during PHHWCF events that are coordinated with the City of Signal Hill and the County of Los Angeles Public Works Department. HHW is not accepted outside of these designated events that are overseen by EDCO partners.)	Non-controlled pharmaceuticals, Needles and syringes, Antifreeze, Cleaning supplies, cosmetics, used motor oil, pesticides, Batteries including car batteries and household batteries, fluorescent light bulbs, TVs, computers, VCRs, stereos, and cell phones.
Universal Waste	All
Salvageable Items	Newsprint, Corrugated containers, Plastic containers (California Redemption Value [CRV] and non-CRV), Mixed plastics, Aluminum cans (CRV and non-CRV), High-grade paper, Mixed paper (including junk mail), Styrofoam, Ferrous and bi-metal containers, Glass containers, Aseptic cartons

Table 2. Materials Not Accepted for Disposal at the EDCO Facility

Material Category	Specific Items
Hazardous Waste	Designated wastes (profiled hazardous materials) are not accepted at the Facility. Other than household hazardous waste, no sludge, liquids, infectious, medical or hazardous materials are accepted at the Facility.
Non-Salvageable Items	The Facility does not accept any cosmetics, beverages, hazardous chemicals, poisons, pesticides or other materials capable of endangering public health.
High Liquid Content Waste	The Facility does not accept any publicly owned treatment works sludge or residuals. It also does not accept industrial wastewater treatment sludge, septic tank pumping, chemical toilet wastes or liquid wastes. The Facility does accept saturated waste less than 15% liquid content, as long as the liquid is non-hazardous.
Household Hazardous Wastes	Household hazardous waste not accepted at any time: ammunition, marine flares, radioactive materials, controlled substances, tires, or large household goods (refrigerators, washing machines, etc.)
Other Wastes Requiring Special Handling	CalRecycle designated special wastes.

The Facility is designed to process 6,336 tons per day (tpd). However, the current Conditional Use Permit (CUP) limits the operational capacity to 1,500 tpd. Recently, the LEA issued an emergency waiver(s) of terms and conditions of the EDCO Transport Services Sold Waste Facility Permit #19-AA-1112 during the declared State emergency, as result of the Coronavirus (COVID-19). These waivers were issued in 120-day increments on November 5, 2020, March 4, 2021, July 7, 2021, October 27, 2021, March 4, 2022, June 28, 2022, and again October 19, 2022, which allowed the Facility to operate at up to 2,500 tpd.

The existing CUP mandates that all ingress and egress from the Facility shall follow the circulation routes depicted in **Figure 4** and that all trucks en route to and departing the Facility shall follow the off-site circulation routes depicted on **Figure 2** and **Figure 3** above. Further, the CUP requires that employee shifts are schedule so that employees do not arrive or depart during peak traffic hours as detailed in **Table 3.**

Table 3. Hourly Distribution of Vehicles (Existing Operations @ 1,500 tpd)

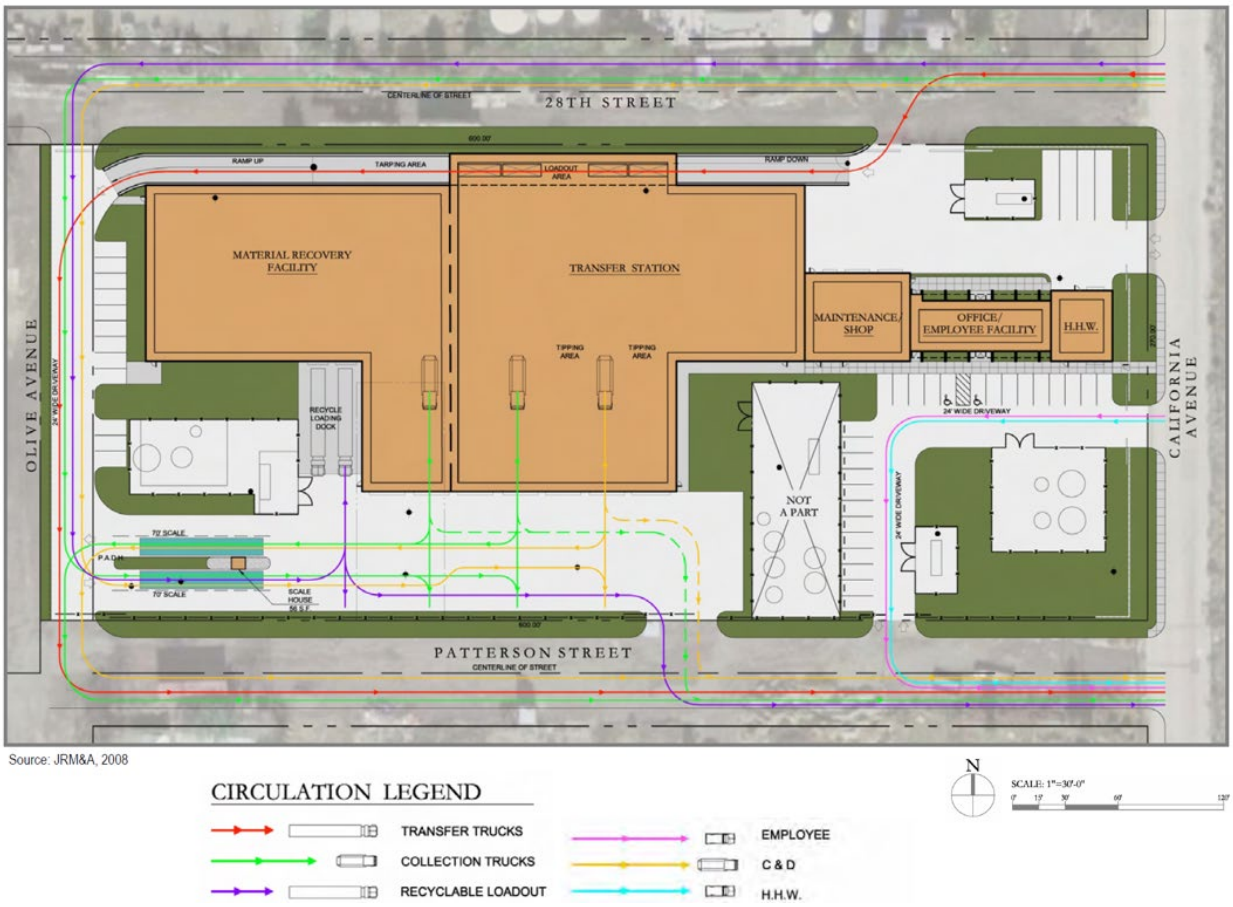
Time	Collection Trucks	Self-Haul Vehicles	Transfer Trucks	Staff Vehicles	Total Vehicles
3:00-4:00 AM	0	0	4	2	6
4:00-5:00 AM	2	0	6	2	10
5:00-6:00 AM	5	0	6	21	32
6:00-7:00 AM	5	10	5	0	20
7:00-8:00 AM	10	15	4	0	29
8:00-9:00 AM	12	25	5	0	42
9:00-10:00 AM	20	30	5	0	55
10:00-11:00 AM	15	35	4	0	54
11:00-12:00 AM	12	45	4	0	61
12:00-1:00 PM	15	30	5	0	50
1:00-2:00 PM	15	35	5	2	57
2:00-3:00 PM	15	30	5	2	52
3:00-4:00 PM	15	25	5	21	66
4:00-5:00 PM	15	20	2	0	37
5:00-6:00 PM	10	0	2	0	12
6:00-7:00 PM	5	0	1	0	6
TOTAL	**171**	**300**	**68**	**50**	**589**

Source: 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009)

Notes: Shading indicates peak traffic hours.

In general, the Facility plays a significant role in reducing both air emissions and vehicle miles traveled, primarily through the consolidation of loads. Benefits include, but are not limited to:

- Reducing overall community truck traffic by consolidating smaller loads into larger vehicles.
- Reducing air pollution, fuel consumption and road wear by consolidating loads into fewer vehicles.
- Allows for screening of waste for special handling.
- Offers residents a convenient drop-off of waste and recyclables and reduces the overall impact of miles driven to a landfill through load consolidation.



Source: JRM&A, 2008

Figure 4. Project Site Access Circulation

1.2 Proposed Project

Since the issuance of the CUP in 2009, the continued growth in the region, as well as seasonal surges in the amount of waste generated, and increased public disposal (self-haulers) has increased. In addition, the Southeast Resource Recovery Facility (SERRF) in Long Beach will close on or about June 30, 2024. As such, upon closure of the SERRF, it is anticipated that a percentage of accepted materials that historically was delivered to the SERRF will instead be diverted to the Facility. Thus, the Project proposes to expand its current permitted tonnage limit of 1,500 to 2,500 (tpd).

The ability to safely and effectively operate at this threshold was demonstrated for over 27 months (November 11, 2020 through February 28, 2023) pursuant to Section 17210.3 and subsequently 17210.2(d) of the California Code of Regulations (CCR) Title 14, the LEA issued an emergency waiver(s) of terms and conditions of the EDCO Transport Services Sold Waste Facility Permit #19-AA-1112 during the declared State emergency, as result of the Coronavirus (COVID-19). These waivers were issued in 120-day increments on November 5, 2020, March 4, 2021, July 7, 2021, October 27, 2021, March 4, 2022, June 28, 2022, and again October 19, 2022, which allowed the Facility to operate at up to 2,500 tpd.

Since the design elements allow for up to 6,336 tpd of load out capacity, no physical changes to the Facility are necessary to accommodate the requested increase to a maximum of 2,500 tpd. In addition, the tipping floor can receive and store up to 3,644 tons of material.

1.2.1 Vehicle trips associated with the Project.

A variety of different types of vehicles utilize the Facility, but they are primarily broken into three categories: collection trucks, transfer tractor/trailers and self-haul/employee vehicles. The Facility is currently permitted for a maximum daily capacity of 1,500 tpd. Using this baseline number, the following assumptions are used to generate the type and number of vehicles anticipated to enter the facility:

- 1,500 tpd of municipal solid waste and recyclable materials.
- Solid waste collection trucks have an average capacity of 7 tons.
- Residual waste transfer trucks (including recyclable materials) have an average capacity of 22 tons.
- Self-haul vehicles have an average of 1 ton.

While the Facility is designed for a maximum daily capacity of 6,336 tpd over a 24-hour period, the 2009 *EDCO Recycling and Transfer Facility Final Environmental Impact Report* (FEIR) (State Clearinghouse SCH # 2008081009), considered a maximum of 1,500 tpd. Using the permitted capacity of 1,500 tpd as a baseline number, the estimated number of commercial trucks accessing the Facility are approximately 239 (171 collection vehicles, 68 transfer tractor trailers) and 350 self-haul/employee passenger vehicles per day. **Table 4** provides a summary of the assumed existing trips, estimated trips, and change in trips from existing conditions under the proposed Project.

Table 4. Trip Generation Summary (Existing versus Proposed Project)

Vehicle Type	Existing (@1,500 tpd)		Project (@2,500 tpd)		Change from Existing
	Vehicles Accessing Facility[1]	ADT (trips/day)[1]	Vehicles Accessing Facility	ADT (trips/day)	ADT (trips/day)
Collection Trucks	171	342	285	570	228
Transfer Trucks	68	136	113	226	90
Self-Haul (Passenger Vehicles)	300	600	500	1,000	400
Employee (Passenger Vehicles)	50	100	100	200	100
TOTAL	**589**	**1,178**	**998**	**1,996**	**818**

Notes:

[1] As reported in 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009)

The vehicle miles traveled (VMT) for the proposed Project has been estimated based on the number of trips generated by the proposed Project as summarized in **Table 5**.

Table 5. Project VMT Summary

Vehicle Type	One-Way Trip Length (miles)[1]	Project ADT (trips/day)	Project Daily VMT (miles/day)
Collection Trucks	10	228	2,280
Transfer Trucks	50	90	4,500
Self-Haul (Passenger Vehicles)	10	400	4,000
Employee (Passenger Vehicles)	20	100	2,000
		TOTAL VMT	**12,780**

Notes:

[1] Trip length as cited in the 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009).

Note that EDCO has converted the entire fleet of collection trucks to renewable natural gas (RNG) powered vehicles. These vehicles are considered "Near Zero" emission vehicles, that produce almost zero nitrogen oxides (NO_X). In addition, the RNG powering the collection fleet is considered a carbon neutral or carbon negative (depending on the specific intensity of the RNG) collection fleet.

1.2.2 Energy and Water Use

Because the EDCO Facility was designed for a maximum capacity of 6,336 tpd of solid waste, increasing the permitted throughput from 1,500 to 2,500 tpd would not require a physical expansion of the facility or result in significant additional on-site energy consumption or water use compared to conditions prior to issuance of the emergency waivers (i.e., hours of operation and electricity and water consumption is generally constant regardless of material throughput up to the maximum design capacity of 6,336 tpd).

1.2.3 Off-Road Equipment Use

Existing operations include the use of diesel loaders for handling and loading refuse at the Facility. Processing of an additional 1,000 tpd would require an increase in the daily operation of diesel off-road equipment at the Facility as detailed in **Table 6**.

Table 6. Project Operations Off-Road Equipment Use

Equipment Type	Fuel	Horsepower	Total Additional Operation (hours/day)
Loader Liebherr L1566	Diesel	272	2

Source: EDCO Signal Hill 2024

SECTION 2 Environmental Setting

The proposed Project is within the South Coast Air Basin (SCAB) under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of air pollutants throughout the SCAB. Air pollutant emissions within the SCAB are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point sources are boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as barbeque lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, race cars, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and State governments have established ambient air quality standards for outdoor concentrations of various pollutants to protect public health and welfare. These pollutants are referred to as “criteria air pollutants” because of the specific standards, or criteria, which have been adopted for them. The federal and State standards have been set at levels considered safe to protect public health, including the health of “sensitive” populations, such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

2.1 Criteria Air Pollutants

A criteria air pollutant is any air pollutant for which ambient air quality standards (criteria) have been set by the U.S. Environmental Protection Agency (USEPA) (National Ambient Air Quality Standards [NAAQS]) or California Air Resources Board (CARB) (California Ambient Air Quality Standards [CAAQS]). The presence of these pollutants in ambient air is generally due to numerous diverse and widespread sources of emissions, and air quality standards have been established for these pollutants to protect public health. Criteria pollutants include ozone (O_3), fine particulate matter ($PM_{2.5}$), respirable particulate matter (PM_{10}), carbon monoxide (CO), nitrogen dioxide (NO_2), lead (Pb), sulfur dioxide (SO_2), visibility-reducing particles, sulfates, and hydrogen sulfide (H_2S). **Table 7** presents the federal and state air quality standards for criteria pollutants. The sections below provide additional details about each of these criteria pollutants.

Table 7. Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS (ppm)	CAAQS (µg/m³)	NAAQS (ppm)	NAQQS (µg/m³)
Ozone (O_3)	1-hour	0.09	180	--	--
	8-hour	0.07	137	0.070	137
Nitrogen Dioxide (NO_2)	1-hour	0.18	339	0.100	188
	Annual	0.03	57	0.053	100
Sulfur Dioxide (SO_2)	1-hour	0.25	655	0.075	196
	3-hour	--	--	0.5	1,300
	24-hour	0.04	105	0.14 (for certain areas)	0.030 (for certain areas)
	Annual arithmetic mean	--	--	0.03	--
Carbon Monoxide (CO)	1-hour	20	0.020	35	0.040
	8-hour	9	0.023	9	0.010
Particulates (as PM_{10})	24-hour	--	50	--	150
	Annual arithmetic mean	--	20	--	--
Particulates (as $PM_{2.5}$)	24-hour	--	--	--	35
	Annual	--	12	--	9.0
Lead (Pb)	30-day	--	1.5	--	--
	Calendar average	--	--	--	1.5 (for certain areas)
	3-month (rolling average)[1]	--	--	--	1.5
Sulfates (as SO_4)	24-hour	--	25	--	--
Hydrogen Sulfide (H_2S)	1-hour	0.03	42	--	--
Vinyl Chloride (C_2H_3Cl)	24-hour	0.01	26	--	--

Source: CARB 2017a and USEPA 2024

Notes:

A rolling average is a calculation to analyze data points by creating series of averages of different subsets of the full data set.
ppm = part(s) per million; µg/m³ = microgram(s) per cubic meter

2.1.1 Ozone

O_3 is formed in the atmosphere by a series of complex chemical reactions and transformations in the presence of sunlight. Oxides of nitrogen (NO_X) and reactive organic gases (ROGs) are the principal constituents in these reactions. O_3 is a pungent, colorless, toxic gas and is a primary component of smog.

O_3 is known as a secondary pollutant because it is formed in the atmosphere through a complex series of chemical reactions, rather than emitted directly into the air. The major sources of NO_X in California are motor vehicles and other combustion processes. The major sources of ROGs in California are motor vehicles and the evaporation of chemical solvents and fuels.

O_3 is a strong irritating gas that can chemically burn and cause narrowing of airways, forcing the lungs and heart to work harder to provide oxygen to the body. People most likely to be affected by O_3 include the elderly, the young, athletes, and those who suffer from respiratory diseases such as asthma, emphysema, and chronic bronchitis.

2.1.2 PM_{10}

PM_{10}, or fugitive dust, consists of particulate matter (fine dusts and aerosols) that is ten microns or smaller in aerodynamic diameter. For reference, ten microns is about one-seventh the width of a human hair. When inhaled, particles larger than 10 microns are generally caught in the nose and throat and do not enter the lungs. PM_{10} gets into the large upper branches of the lungs just below the throat, where they are caught and removed (by coughing, spitting, or swallowing).

The primary sources of PM_{10} include dust, paved and unpaved roads, diesel exhaust, acidic aerosols, construction and demolition operations, soil and wind erosion, agricultural operations, residential wood combustion, and smoke. Secondary sources of PM_{10} include tailpipe emissions and industrial sources. These sources have different constituents and therefore, varying effects on health. Airborne particles absorb and adsorb toxic substances and can be inhaled and lodge in the lungs. Once in the lungs, the toxic substances can be absorbed into the bloodstream and carried throughout the body. PM_{10} concentrations tend to be lower during the winter months because meteorology greatly affects PM_{10} concentrations. During rainfall events, concentrations are relatively low, and on windy days, PM_{10} levels can be high. Photochemical aerosols, formed by chemical reactions with manmade emissions, may also influence PM_{10} concentrations.

Elevated ambient particulate levels are associated with premature death, an increased number of asthma attacks, reduced lung function, aggravation of bronchitis, respiratory disease, and cancer.

2.1.3 $PM_{2.5}$

$PM_{2.5}$ is a mixture of particulate matter (fine dusts and aerosols) that is 2.5 microns or smaller in aerodynamic diameter. For reference, 2.5 micrometers is approximately 1/30 the size of a human hair, so small that several thousand of these particles could fit on the period at the end of this sentence. $PM_{2.5}$ can travel into the deepest portions of the lungs where gas exchange occurs between the air and the bloodstream. These particles are very dangerous because the deepest portions of the lungs have no efficient mechanisms for removing them. If these particles are soluble in water, they pass directly into the bloodstream within minutes. If they are not soluble in water, they are retained deep in the lungs and can remain there permanently.

$PM_{2.5}$ particles are emitted from activities such as industrial and residential combustion processes, wood burning, and from diesel and gasoline-powered vehicles. They are also formed in the atmosphere from gases such as SO_2, NO_X, ammonia, and volatile organic compounds that are emitted from combustion activities, and then become particles as a result of chemical transformations in the air (secondary particles).

Exposure to $PM_{2.5}$ increases the risks of long-term disease, including chronic respiratory disease, cancer, and increased and premature death. Other effects include increased respiratory stress and disease, decreased lung function, alterations in lung tissue and structure, and alterations in respiratory tract defense mechanisms.

2.1.4 Carbon Monoxide

CO is a common colorless, odorless, highly toxic gas. It is produced by natural and anthropogenic combustion processes. The major source of CO in urban areas is incomplete combustion of carbon containing fuels (primarily gasoline, diesel fuel, and natural gas). However, it also results from combustion processes, including forest fires and agricultural burning. Over 80 percent of the CO emitted in urban areas is contributed by motor vehicles. Ambient CO concentrations are generally higher in the winter, usually on cold, clear days and nights with little or no wind. Low wind speeds inhibit horizontal dispersion, and surface inversions inhibit vertical mixing. Traffic-congested intersections have the potential to result in localized high levels of CO. These localized areas of elevated CO concentrations are termed CO “hotspots”. CO hotspots are defined as locations where ambient CO concentrations exceed the CAAQS (20 parts per million (ppm), 1-hour; 9 ppm, 8-hour).

When inhaled, CO does not directly harm the lungs; rather, it combines chemically with hemoglobin, the oxygen-transporting component of blood and diminishes the ability of blood to carry oxygen to the brain, heart, and other vital organs. Red blood cells have 220 times the attraction for CO than for oxygen. This affinity interferes with movement of oxygen to the body’s tissues. Effects from CO exposure include headaches, nausea, and death. High levels of CO in a concentrated area can result in asphyxiation.

2.1.5 Nitrogen Dioxide

NO_2 is formed in the atmosphere primarily by the rapid reaction of the colorless gas nitric oxide (NO) with atmospheric oxygen. It is a reddish-brown gas with an odor similar to that of bleach. NO_2 participates in the photochemical reactions that result in O_3. The greatest source of NO, and subsequently NO_2, is the high-temperature combustion of fossil fuels such as in motor vehicle engines and power plant boilers. NO_2 and NO are referred to collectively as NO_X.

NO_2 can irritate and damage the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections such as influenza. Negative health effects are apparent after exposure to NO_2 levels as low as 0.11 ppm for a few minutes. This level of exposure may elicit or alter sensory responses. Higher concentrations (0.45 - 1.5 ppm) may cause impaired pulmonary function, increased incidence of acute respiratory disease, and difficult breathing for both bronchitis sufferers and healthy persons.

2.1.6 Lead

Lead is a bluish-gray metal that occurs naturally in small quantities. Pure lead is insoluble in water. However, some lead compounds are water soluble. Lead and lead compounds in the atmosphere often come from fuel combustion sources, such as the burning of solid waste, coal, and oils. Historically, the largest source of lead in the atmosphere resulted from the combustion of leaded gasoline in motor vehicles. However, with the phase-out of leaded gasoline, concentrations of lead in the air have substantially decreased. Industrial sources of atmospheric lead include steel and iron factories, lead smelting and refining, and battery manufacturing. Atmospheric lead may also result from lead in entrained dust and dirt contaminated with lead.

Acute health effects of lead include gastrointestinal distress (such as colic), brain and kidney damage, and even death. Lead also has numerous chronic health effects, including anemia, central nervous system damage, reproductive dysfunction, as well as effects on blood pressure, kidney function, and vitamin D metabolism. The USEPA's Office of Air Quality Planning and Standards ranks lead as a "high concern" pollutant based on its severe chronic toxicity.

2.1.7 Sulfur Dioxide

SO_2 is a colorless gas with a sharp, irritating odor. It can react in the atmosphere to produce sulfuric acid and sulfates, which contribute to acid deposition and atmospheric visibility reduction. It also contributes to the formation of PM_{10}. Most of the SO_2 emitted into the atmosphere is from the burning of sulfur-containing fossil fuels by mobile sources, such as marine vessels and farm equipment, and stationary fuel combustion.

SO_2 irritates the mucous membranes of the eyes and nose, and may also affect the mouth, trachea, and lungs, causing sore throat, coughing, and breathing difficulties.

2.2 Toxic Air Contaminants

Toxic air contaminants (TACs), also referred to as hazardous air pollutants, are air pollutants (excluding O_3, CO, SO_2, and NO_2) that may reasonably be anticipated to cause cancer, developmental effects, reproductive dysfunction, neurological disorders, heritable gene mutations, or other serious or irreversible acute or chronic health effects in humans. TACs are regulated under different federal and State regulatory processes than O_3 and the other criteria air pollutants. Health effects of TACs may occur at extremely low levels, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TACs generally consist of four types: 1) organic chemicals such as benzene, dioxins, toluene, and perchloroethylene; 2) inorganic chemicals such as chlorine and arsenic; 3) fibers such as asbestos; and 4) metals such as mercury, cadmium, chromium, and nickel. These air contaminants are defined by the USEPA, the State of California, and other governmental agencies. Currently, more than 900 substances are regulated TACs under federal, State, and local regulations.

TACs are produced by a variety of sources, including industrial facilities such as refineries, chemical plants, chrome plating operations, and surface coating operations; commercial facilities such as dry cleaners and gasoline stations; motor vehicles, especially diesel-powered vehicles; and consumer products. TACs can be released as a result of normal industrial operations, as well as from accidental releases during process upset conditions.

Health effects from TACs vary with the type of pollutant, the concentration of the pollutant, the duration of exposure, and the exposure pathway. TACs usually get into the body through inhalation, though they can also be ingested or absorbed through the skin. Adverse effects on people tend to be either acute or chronic. Acute effects result from short-term, high levels of airborne toxic substances. These effects may include nausea, skin irritation, cardiopulmonary distress, and even death. Chronic effects result from long-term, low-level exposure to airborne toxic substances. Effects can range from relatively minor to life-threatening. Less serious chronic effects include skin rashes, dry skin, coughing throat irritation, and headaches. More serious chronic effects include lung, liver, and kidney damage; nervous system damage; miscarriages; genetic and birth defects; and cancer. Many TACs can have both carcinogenic and non-carcinogenic health effects.

2.3 Other Issues of Concern

2.3.1 Odors

Odors are substances in the air that pose a nuisance to nearby land uses such as residences, schools, daycare centers, and hospitals. Odors are typically not a health concern but can interfere with the use and enjoyment of nearby property. Odors may be generated by a wide variety of sources. The odor associated with decomposing organic material (such as organic refuse left to decay) may also be considered to be objectionable. Objectionable odors created by a facility or operation may cause a nuisance or annoyance to adjacent populations.

2.3.2 Fugitive Dust

Fugitive dust refers to solid particulate matter that becomes airborne because of wind action and human activities. Fugitive dust particles are mainly soil minerals, but can also be sea salt, pollen, spores, tire particles. About half of fugitive dust particles (by weight) are larger than 10 microns and settle quickly. Fugitive dust particles 10 microns or smaller (i.e., PM_{10}) can remain airborne for weeks.

The primary sources of fugitive dust are grading and excavation operations associated with road and building construction, aggregate mining and processing operations, and sanitary landfill operations. Unpaved roadways are also a large source of fugitive dust. Other sources of fugitive dust include demolition activities, unpaved roadway shoulders, vacant lots, material stockpiles, abrasive blasting operations, and off-road vehicle use. The amount of fugitive dust created by such activities is dependent largely on the type of soil, type of operation taking place, size of the area, degree of soil disturbance, soil moisture content, and wind speed.

When fugitive dust particles are inhaled, they can travel easily to the deep parts of the lungs and may remain there, causing respiratory illness, lung damage, and even premature death in sensitive people. Fugitive dust may also be a nuisance to those living and working nearby. Dust blown across roadways can lead to traffic accidents by reducing visibility. Fugitive dust can soil and damage materials and property, such as fabrics, vehicles, and buildings. Particulates deposited on agricultural crops can lower crop quality and yield. Additionally, fugitive dust can lead to the spread of San Joaquin Valley Fever, a potential health hazard caused by a fungus that lives in certain soil types throughout California.

2.4 Greenhouse Gas

Recent significant changes in global climate patterns have been associated with global warming, an average increase in the temperature of the atmosphere near Earth's surface. Global warming has been attributed to the accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities appears to be closely associated with global warming.

The standard state definition of GHG includes six substances: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6) (CARB 2014). Tropospheric O_3 (a short-lived, not-well-mixed gas) and black carbon are also important climate pollutants. CO_2 is the most abundant GHG, and collectively CO_2, CH_4, and N_2O amount to 80 percent of GHG effects.

For each GHG, a global warming potential (GWP) has been calculated to reflect how long emissions remain in the atmosphere and how strongly energy is absorbed on a per-kilogram basis relative to CO_2. GWP is a metric that indicates the relative climate forcing of a kilogram of emissions when averaged over the period of interest (both 20-year and 100-year horizons are used for the GWPs shown in **Table 8**). To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO_2, denoted as CO_2e. CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect.

Table 8. Global Warming Potential for Selected Greenhouse Gases

Pollutant	Lifetime (Years)	Global Warming Potential (20-Year)	Global Warming Potential (100-Year)
Carbon Dioxide	100	1	1
Nitrous Oxide	121	264	265
Nitrogen Triflouride	500	12,800	16,100
Sulfur Hexafluoride	3,200	17,500	23,500
Perfluorocarbons	3,000-50,000	5,000-8,000	7,000-11,000
Black Carbon	days to weeks	270-6,200	100-1,700
Methane	12	84	28
Hydrofluorocarbons	Uncertain	100-11,000	100-12,000

Source: CARB 2014

The primary effect of rising global concentrations of atmospheric GHG is a rise in the average global temperature of approximately 0.2 degrees Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using emission rates shows that further warming is likely to occur given the expected rise in global atmospheric GHG

concentrations from innumerable sources of GHG emissions worldwide, which would induce further changes in the global climate system during the current century.

Scientific understanding of the fundamental processes responsible for global climate change has improved over the past decade. However, there remain significant scientific uncertainties. For example, uncertainties exist in predictions of local effects of climate change, occurrence of extreme weather events, and effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the climate system, the uncertainty surrounding the implications of climate change may never be eliminated. Because of these uncertainties, there continues to be significant debate as to the extent to which increased concentrations of GHGs have caused or would cause climate change, and with respect to the appropriate actions to limit and/or respond to climate change. In addition, it may not be possible to link specific development projects to future specific climate change impacts, though estimating project-specific impacts is possible.

2.5 Existing Regional Air Quality

Measurements of ambient concentrations of the criteria pollutants are used by the USEPA and CARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with national and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in "attainment." If the pollutant exceeds the standard, the area is classified as a "nonattainment" area. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified."

The Los Angeles County portion of the SCAB is designated by the USEPA as a nonattainment area for ozone, lead, and $PM_{2.5}$; an attainment area for PM_{10}; and an attainment/unclassified area for NO_2. The SCAB is designated by CARB as a state-level nonattainment area for ozone, $PM_{2.5}$, and PM_{10} and as an attainment area for lead, CO, NO_2, and SO_2. **Table 9** shows the attainment status of the SCAB for the state and federal standards.

Table 9. South Coast Air Basin Attainment Status

Pollutant	Attainment Status	
	CAAQS	NAAQS
Ozone (O_3)	Nonattainment	Extreme Nonattainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Unclassified/Attainment
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Particulates (as PM_{10})	Nonattainment	Attainment
Particulates (as $PM_{2.5}$)	Nonattainment	Serious Nonattainment
Lead (Pb)	Attainment	Nonattainment (Los Angeles County Portion)

Source: CARB 2023a.

The SCAQMD divides the SCAB into 37 source receptor areas (SRAs) in which 42 monitoring stations currently operate to monitor concentrations of air pollutants in the region (SCAQMD 1999). The Project is located within SRA 4. For the purposes of background data and this air quality analysis, this analysis relied on data collected in the last three years for the CARB monitoring stations that are located in the closest proximity to the Project Site. **Table 10** provides the background concentrations from 2020 through 2022 (the latest data available) for O_3, CO (1-hour and 8-hour averaging period), NO_2, PM_{10}, $PM_{2.5}$, SO_2, and Pb. Information is provided for monitoring stations #072, 077, 033, and 039).

Table 10. Local Air Quality Levels

Pollutant and Monitoring Station Location	Maximum Concentration			Days Exceeding Standard		
	2020	2021	2022	2020	2021	2022
O_3 – 1-hour CAAQS (0.09 ppm)						
Long Beach – Signal Hill	0.105	0.086	0.108	4	0	1
Long Beach – 2425 Webster Street	*	*		*	*	*
Compton – 700 North Bullis Road	0.152	0.085	0.111	3	0	1
O_3 – 8-hour CAAQS (0.07 ppm)						
Long Beach – Signal Hill	0.083	0.065	0.77	4	0	1
Long Beach – 2425 Webster Street	*	*	*	*	*	*
Compton – 700 North Bullis Road	0.115	0.077	0.085	4	1	1
O_3 – 8-hour NAAQS (0.070 ppm)						
Long Beach – Signal Hill	0.083	0.064	0.77	4	0	1
Long Beach – 2425 Webster Street	*	*	*	*	*	*
Compton – 700 North Bullis Road	0.115	0.076	0.085	4	1	1
PM_{10} – 24-hour CAAQS (50 µg/m³)						
South Long Beach	68.7	49.7	50.3	3	0	0
Long Beach – 2425 Webster Street	61.4	*	*	3	*	*
PM_{10} – 24-hour NAAQS (150 µg/m3)						
Long Beach – Signal Hill	*	*	57.9	*	*	0
South Long Beach	68.3	48.7	48.9	0	0	0
Long Beach – 2425 Webster Street	61.6	*	128.6	0	*	0
$PM_{2.5}$ - 24-hour NAAQS (35 µg/m³)						
Long Beach – Signal Hill	*	*	26.7	*	*	0
South Long Beach	63.7	42.9	26.6	10	4	0
North Long Beach	66.0	41.2	20.0	4	1	0
Long Beach – Route 710 Near Road	65.7	84.6	39.0	12	7	1
CO - 8-Hour CAAQS & NAAQS (9.0 ppm)						
No data collected	--	--	--	--	--	--
NO_2 - 1-Hour CAAQS (0.18 ppm)						
Long Beach – Signal Hill	0.075	0.059	0.058	0	0	0
Compton – 700 North Bullis Road	0.072	0.068	0.065	0	0	0
Long Beach – Route 710 Near Road	0.100	0.091	0.095	0	0	0
NO_2 - 1-Hour NAAQS (0.10 ppm)						
Long Beach – Signal Hill	0.075	0.059	0.058	0	0	0
Compton – 700 North Bullis Road	0.072	0.068	0.064	0	0	0
Long Beach – Route 710 Near Road	0.100	0.092	0.095	0	0	0
SO_2 – 24-hour Concentration - CAAQS (0.04 ppm) & NAAQS (0.14 ppm)						
No data collected	--	--	--	--	--	--
Pb - Maximum 30-Day Concentration CAAQS (1500 ng/m³)						

Pollutant and Monitoring Station Location	Maximum Concentration			Days Exceeding Standard		
	2020	2021	2022	2020	2021	2022
Los Angeles – North Main Street	8.6	*	*	*	*	*

Source: CARB 2023b

Notes:

ppm= parts per million

* There was insufficient (or no) data available to determine the value.

2.6 Sensitive Receptors

Some population groups, such as children, the elderly, and acutely and chronically ill persons are considered more sensitive to air pollution than others. Sensitive receptor locations typically include residential areas, hospitals, elder-care facilities, rehabilitation centers, daycare centers, and parks. The Project site is in an urban area surrounded by oilfield operations and commercial development.

Sensitive receptors in proximity to the Facility include healthcare facilities and nursing homes, commercial business, place of worship, and single-family residences. **Table 11** summarizes the sensitive receptors in the Project area and distance to the nearest Project components.

Table 11. Sensitive Receptors in Proximity to the Facility.

Direction from Project Site	Sensitive Receptor	Distance to Nearest Project Component
Northwest	K Wellness Holistic Health Spa (701 E. 28th St.)	520 feet
Northwest	Nagourney Cancer Institute (750 E. 29th St.)	565 feet
West	Lung and Allergy Health Associates (2790 Atlantic Ave.)	560 feet
West	Memorial Orthopedic Surgical Group (2760 Atlantic Ave.)	460 feet
West	Atlantic Memorial Healthcare Center (2750 Atlantic Ave.)	475 feet
East	Willow Spring Park (2745 Orange Ave.)	860 feet
Southwest	Single Family Residences (Lime Ave.)	625 feet
South	Long Beach Islamic Center (995 E. 27th St)	225 feet
South	Cal Institute of EMT Training Institute (2669 Myrtle Ave.)	380 feet
South	Single Family Residences (E. Walton St.)	700 feet

SECTION 3 Regulatory Framework

Federal, state, and local regulations and policies that may apply to the proposed Project emissions are described below.

3.1 Federal

3.1.1 Clean Air Act

The Federal Clean Air Act (CAA), passed in 1970 and last amended in 1990, is the primary federal law that governs air quality. The Federal CAA delegates primary responsibility for clean air to the U.S. EPA. The U.S. EPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to state and local agencies. Under the act, the U.S. EPA has established the NAAQS for six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. Ozone, CO, NO_2, SO_2, Pb, and PM (Including both PM_{10}, and $PM_{2.5}$) are the six criteria air pollutants. Ozone is a secondary pollutant, nitrogen oxides (NO_X) and volatile organic compounds (VOCs) are of particular interest as they are precursors to ozone formation. In addition, national standards exist for Pb. The NAAQS standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision.

The Federal CAA requires U.S EPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized above in **Table 7**.

3.2 State

3.2.1 California Clean Air Act

The California Clean Air Act (CCAA) was adopted by CARB in 1988. The CCAA is responsible for meeting the state requirements of the Federal CAA and for establishing the CAAQS. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The CCAA, as amended in 1992, requires all air districts of the state to achieve and maintain the CAAQS by the earliest practical date.

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous 3 calendar years. As shown in **Table 7**, the CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment.

3.2.2 California State Implementation Plan

The CAA mandates that the state submit and implement a State Implementation Plan (SIP) for areas not meeting the NAAQS. These plans must include pollution control measures that demonstrate how the standards will be met. State law makes CARB the lead agency for all purposes related to the SIP.

Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. The Code of Federal Regulations Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP.

3.2.3 Toxic Air Contaminants Regulation

Toxic Air Contaminant (TAC) sources include industrial processes, dry cleaners, gasoline stations, paint and solvent operations, and fossil fuel combustion sources (i.e., Diesel Particulate Matter [DPM]).

In August 1998, CARB identified DPM emissions from diesel-fueled engines as a TAC. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel fueled engines and vehicles. The goal of the plan is to reduce diesel PM_{10} (inhalable particulate matter) emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identified 14 measures that target new and existing on-road vehicles (e.g., heavy duty trucks and buses, etc.), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps, etc.), and stationary engines (e.g., stand-by power generators, etc.).

3.2.4 Executive Order S-3-05

On June 1, 2005, Executive Order S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. It calls for the Secretary of CalEPA to be responsible for coordination of state agencies and progress reporting.

3.2.5 Executive Order B-30-15

In April 2015, Governor Edmund Brown issued an Executive Order establishing a statewide GHG reduction goal of 40 percent below 1990 levels by 2030. The emission reduction target acts as an interim goal between the AB 32 goal (i.e., achieve 1990 emission levels by 2020) and Governor Brown's Executive Order S-03-05 goal of reducing statewide emissions 80 percent below 1990 levels by 2050. In addition, the Executive Order aligns California's 2030 GHG reduction goal with the European Union's reduction target (i.e., 40 percent below 1990 levels by 2030) that was adopted in October 2014.

3.2.6 Assembly Bill 32 (AB 32)

In September 2006, the California Global Warming Solutions Act of 2006, also known as AB 32, was signed into law. AB 32 focuses on reducing GHG emissions in California and requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. CARB initially determined that the total statewide aggregated GHG 1990 emissions level and 2020 emissions limit was 427 $MMTCO_2e$. The 2020 target reduction was estimated to be 174 $MMTCO_2e$.

To achieve the goal, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved.

The Mandatory Commercial Recycling Measure included in this bill focuses on increased commercial waste diversion as a method to reduce GHG emissions. It is designed to achieve a reduction in GHG emissions of 5 million metric tons of carbon dioxide equivalents. To achieve the measure's objective, an additional 2 to 3 million tons of materials annually will need to be recycled from the commercial sector by the year 2020 and beyond.

3.2.7 Assembly Bill 341 (AB 341)

The Commercial Recycling Requirements mandate that businesses (including public entities) that generate 4 cubic yards or more of commercial solid waste per week and multi-family residential with five units or more arrange for recycling services. Businesses can take one or any combination of the following in order to reuse, recycle, compost, or otherwise divert solid waste from disposal: self-haul, arrange for collection of source-separated recyclables, or subscribe to a recycling service.

3.2.8 Assembly Bill 1279 (AB 1279)

AB 1279 was passed on September 16, 2022 and declares the State would achieve net zero GHG emissions as soon as possible, but no later than 2045. In addition, achieve and maintain net negative GHG emissions and ensure that statewide anthropogenic GHG emissions are reduced to at least 85% below the 1990 levels by 2045. The bill would require updates to the scoping plan (once every five years) to implement various policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies.

3.2.9 Assembly Bill 1826 (AB 1826)

This measure requires businesses that generate 8 cubic yards or more of organic waste to start recycling it by April 2016, and also requires that local jurisdictions implement an organic waste recycling program to receive organic waste from businesses and multi-family developments. This measure includes a scaled approach that increases the organic waste recycling requirements for businesses in 2017, 2019, and 2020. This bill is intended to achieve the GHG reduction goals of AB 32.

3.2.10 Senate Bill 32 (SB 32)

Senate Bill (SB) 32, signed September 8, 2016, updates AB 32 to include an emissions reduction goal for the year 2030. Specifically, SB 32 requires the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

3.2.11 Senate Bill 375 (SB 375)

Acknowledging the relationship between land use planning and transportation sector GHG emissions, Senate Bill (SB) 375 was passed by the State Assembly on August 25, 2008, and signed by the Governor

on September 30, 2008. This legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions would be achieved by, for example, locating employment opportunities close to transit.

Under SB 375, each Metropolitan Planning Organization (MPO) would be required to adopt a Sustainable Community Strategy (SCS) to encourage compact development that reduce passenger VMT and trips so that the region will meet a target, created by CARB, for reducing GHG emissions. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target could be achieved through alternative development patterns, infrastructure, and/or transportation measure.

3.2.12 Southern California Association of Governments

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, the Southern California Association of Governments (SCAG) adopted the *2020–2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020–2045 RTP/SCS) on September 3 ,2020. The 2020–2045 RTP/SCS reaffirms the land use policies that were incorporated into the 2016–2040 RTP/SCS. The 2020-2045 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by achieving a 19 percent reduction by 2035 compared to the 2005 level on a per capita basis. Compliance with and implementation of 2020 RTP/SCS policies and strategies would have co-benefits of reducing per capita criteria air pollutant emissions associated with reduced per capita VMT.

3.2.13 Climate Change Scoping Plan

In 2008, CARB approved the original Climate Change Scoping Plan as required by AB 32. Subsequently, CARB approved updates to the Climate Change Scoping Plan in 2014 (First Update) and 2017 (2017 Update), with the 2017 Update considering SB 32 (adopted in 2016) in addition to AB 32. In December 2022, CARB approved the final version of California's 2022 Climate Change Scoping Plan (2022 Scoping Plan Update), which outlines the proposed framework of action for achieving California's new AB 1279 2045 GHG target: an 85 percent reduction in GHG emissions by 2045 relative to 1990 levels. The original Climate Change Scoping Plan proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health. The original Climate Change Scoping Plan identified a range of GHG reduction actions that included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The 2022 Scoping Plan Update focuses on strategies for reducing California's dependency on petroleum to provide customers with clean energy options that address climate change and support clean sector jobs. SB 350 and other regulations are expected to decarbonize the electricity sector over time.

3.3 Regional

3.3.1 South Coast Air Quality Management District (SCAQMD)

The SCAQMD has jurisdiction over the SCAB and also regulates the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin.

The 1977 Lewis Air Quality Management Act merged four air pollution control districts to create the SCAQMD to coordinate air quality planning efforts throughout southern California. It is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and federal ambient air quality standards. Programs include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

All areas designated as non-attainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures. The SCAG assists by preparing the transportation portion of the AQMP. On December 2, the SCAQMD adopted its 2022 AQMP (SCAQMP), which is now the legally enforceable plan for meeting the 24-hour $PM_{2.5}$ strategy standard.

In addition to criteria pollutants, the SCAQMD also regulates air toxics. A cornerstone of its work was the development of the Multiple Air Toxics Exposure Study (MATES-V). The monitoring program measured a broad list of air pollutants, including both gases and particulates, and estimated the risk of cancer from breathing toxic air pollution throughout the region (SCAQMD 2021).

In its role as the local air quality regulatory agency, the SCAQMD also provides guidance on how environmental analyses should be prepared. This includes recommended thresholds of significance for evaluating air quality impacts. To determine whether air quality impacts from the proposed Program or Alternatives may be significant, impacts will be evaluated and compared to the criteria in **Table 12**. If impacts equal or exceed any of the criteria in **Table 12**, they are considered significant.

Table 12. SCAQMD Air Quality Mass Daily Significance Thresholds

Pollutant	Mass Daily Thresholds (Construction)	Mass Daily Thresholds (Operation)
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

Pollutant	Mass Daily Thresholds (Construction)	Mass Daily Thresholds (Operation)
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor or nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2019.

lbs/day = pounds per day

SCAQMD is currently in the process of developing an "Air Quality Analysis Guidance Handbook" (Handbook) to replace the SCAQMD CEQA Handbook. Until the Air Quality Analysis Guidance Handbook becomes available, the SCAQMD provides supplemental information to assist in air quality analysis. Specifically, the SCAQMD provides Localized Significance Thresholds (LSTs) for projects that are five acres or less. To provide a conservative assessment, the Project site is considered a 2-acre site located 100 meters (328.08 feet) from a sensitive receptor for the purpose of comparing to the relevant LSTs. The Project is located in SRA 4 (South Coastal LA County). Accordingly, the emissions thresholds for SRA 4 for receptors located 100 meters from individual project sites as summarized in **Table 13**, are used to determine whether air quality impacts from the proposed Project within the SCAQMD may be significant.

Table 13. Emission Localized Significance Thresholds for Construction and Operation (2-Acre Project Site, 100 Meters from Sensitive Receptor)

Pollutant	Localized Significance Thresholds	
	Construction	Operation
NO_x	87 lbs/day	87 lbs/day
CO	1,611 lbs/day	1,611 lbs/day
PM_{10}	37 lbs/day	9 lbs/day
$PM_{2.5}$	13 lbs/day	4 lbs/day

Source: SCAQMD 2008.

3.3.1.1 SCAQMD Rules

The SCAQMD has established various rules to manage air quality in the SCAB. The following rules are applicable to the proposed Project:

- **Rule 401 (Visible Emissions)** applies to visible emissions for more than three (3) minutes within any given hour from either stationary sources or mobile sources.
- **Rule 402 (Nuisance)** states that a person should not emit air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

- **Rule 403 (Fugitive Dust)** controls fugitive dust through various requirements including, but not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas.
- **Rules 404 and 405 (Particulate Matter- Concentration and weight)** limits the particulate matter that can be discharged into the atmosphere. These rules are applicable to the operation of the Transfer Station.
- **Rule 407 (Liquid and Gaseous Air Contaminants)** limits the amount of CO and sulfur compounds such as sulfur dioxide (SO_2) that can be discharged into the atmosphere. This rule will apply to Project operations.
- **Rule 409 (Combustion Contaminants**) limits the amount of CO_2 that can be discharged into the atmosphere. This rule applies to Project operations.
- **Rule 410 (Odors from Transfer Stations and Material Recovery Facilities)** establishes odor management practices and requirements so as to reduce odors from transfer stations and material recovery facilities.
- **Rule 473 (Disposal of Solid and Liquid Wastes)** requires that the burning of waste only be incinerated in devices approved by an Air Pollution Control Officer.
- **Rule 1193 (Clean On-Road Residential and Commercial Refuse Collection)** requires public and private solid waste collection fleet operators to acquire alternative-fuel refuse collection heavy-duty vehicles (gross vehicle weight of 14,000 pounds or more) when procuring or leasing these vehicles for use by or for governmental agencies in the SCAQMD to reduce air toxic and criteria pollutant emissions. EDCO has indicated that their entire fleet of collection vehicles is fueled by RNG and thus meets the requirements of this rule.

3.3.2 Southern California Association of Governments – 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The SCAG is the designated metropolitan planning organization for Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial Counties. CEQA requires that regional agencies like SCAG review projects and plans throughout its jurisdiction. SCAG, as the region's "Clearinghouse," collects information on projects of varying size and scope to provide a central point to monitor regional activity. SCAG has the responsibility of reviewing dozens of projects, plans, and programs every month. Projects and plans that are regionally significant must demonstrate to SCAG their consistency with a range of adopted regional plans and policies.

On September 3, 2020, SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2020). The RTP/SCS or "Connect SoCal" includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the NAAQS as set forth by the federal CAA.

SECTION 4 Environmental Impacts

4.1 Methodology

This impacts analysis evaluates the potential for the Project (described in **Section 1.2**) to impact the air quality resource within the Project area and GHGs. The Project would not require modification or expansion of the Facility, thus impacts are limited to additional vehicle trips and increase in operational activity at the Project site.

Project-related emissions were estimated using the latest version of California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operation of a variety of land use projects. The model utilizes widely accepted federal and state models for emission estimates and default data from sources such as U.S. EPA AP-42 emission factors, CARB vehicle emission models, and studies from California agencies such as the California Energy Commission (CEC). CalEEMod inputs for Project activities consist of the data provided for VMT and off-road equipment as detailed in **Table 5** and **Table 6** above. The analysis of long-term operational impacts also used the CalEEMod computer model for mobile and off-road source emissions associated with the expanded operations as detailed in **Section 1.2.1** and **Section 1.2.3**. As noted in **Section 1.2.1**, EDCO has converted the entire fleet of collection trucks to RNG powered vehicles. Accordingly, exhaust emission factors for the collection vehicle trips were adjusted in the CalEEMod model based on emission factors from the CARB emission factor model EMFAC2021 specific for natural gas-powered solid waste collection vehicles (SWCV) as specified for category "T7 SWCV Class 8." With respect to net GHG emissions associated with RNG, this analysis also relies on GHG emission factors that are obtained from the California Climate Investments Emission Factor Database (CARB 2023c).

For the evaluation of health risks associated with the Project, the analysis below relies upon the results of the Health Risk Assessment conducted for the Facility as included in the 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009). The Health Risk Assessment conducted in 2009 included emissions associated with off-road equipment and on-road mobile sources. The primary toxic pollutant considered in the analysis was DPM. Note that off-site emissions released from transport trucks along the highways and roadways were determined to result in less than significant air quality and health impacts since they would be distributed and diluted over a relatively wide area (100 square miles, or greater). Accordingly, on-site emissions localized to the Project site were considered in the analysis of health impacts on nearby sensitive receptors. Operational on-site emissions analyzed included mobile and idling emissions associated with 340 collection trucks, 600 self-haul vehicles, 136 transfer trucks, 50 employee vehicles traveling to and from the Facility, as well as emissions associated with off-road diesel equipment during truck unloading. The health risk assessment assumed that DPM emissions would remain the same for the next 70 years with residential cancer risk assuming a lifetime of exposure (i.e., 24-hours per day, 7 days per week over 70 years) and worker cancer risk assuming 40 years of exposure (i.e., 8 hours per day for 50 weeks per year). However, in reality DPM emissions associated with Project operations have significantly decreased with the

transition of the entire collection truck fleet to renewable natural gas vehicles. The conservative results of the Health Risk Assessment for operations handling up to 1,500 tpd of refuse indicated that the maximum cancer risk at the nearest residential sensitive receptor (625 feet southwest of the Facility) would be between 0.5 to less than 0.01 cancer per one million depending on the location. The maximum cancer risk at the nearest business location (150 feet west of the Facility) was estimated to be 0.1 cancers per one million.

4.2 Thresholds of Significance

4.2.1 Air Quality Significance Thresholds

In accordance with Appendix G to the state CEQA Guidelines, the proposed project would have a significant impact on air quality if it would result in:

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

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

c. Expose sensitive receptors to substantial pollutant concentrations.

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

SCAQMD also provides Air Quality Significance Thresholds (SCAQMD 2019) to assess the impact of Project-related air pollution emissions. **Table 12** presented in **Section 3.3.1** above details these significance thresholds. A project with daily emission rates below these thresholds is considered to have a less than significant impact on regional air quality and to not make a considerable contribution to a cumulative impact.

In addition, as detailed in **Section 3.3.1**, the SCAQMD provides Localized Significance Thresholds (LSTs) for projects that are five acres or less. To provide a conservative assessment, a 2-acre Project site located 100 meters (328.08 feet) from sensitive receptors is assumed for the purpose of comparing to the relevant LSTs. The Project is located in SRA 4. Accordingly, the emissions thresholds for SRA 4 for receptors located 100 meters from the Project site as summarized in **Table 12** presented in **Section 3.3.1** above, are used to determine whether air quality impacts from the proposed Project within the SCAQMD may be significant.

4.2.2 GHG Significance Thresholds

Based on CEQA Guidelines Section 15064.4 and 15064.7(c), as well as Appendix G, a project would result in significant GHG emissions impacts on the environment if it would:

a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

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

The SCAQMD has not adopted GHG thresholds of significance for CEQA. Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significance for GHG emissions if a project complies with regulatory programs to reduce GHG emissions.

Even in the absence of clearly defined thresholds for GHG emissions, the CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency should make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Section 15064.4(a) further provides that a lead agency shall have the discretion to determine, in the context of a particular project, whether: (1) to use a model or methodology to quantify GHG emissions resulting from a project and which model methodology to use and/or (2) to rely on qualitative analysis or performance-based standards. Pursuant to the State CEQA Guidelines Section 15064.4(a), the analysis presented herein uses a model or methodology to quantify GHG emissions resulting from the Project. The analysis contained herein provides a good-faith effort to describe, calculate, and estimate GHG emissions resulting from the Project.

Although the Project's GHG emissions have been quantified, neither CARB, SCAQMD, SCAG, nor the City of Signal Hill has adopted quantitative significance thresholds for assessing impacts related to GHG emissions applicable to the proposed Project. While no thresholds have been adopted, the SCAQMD has been evaluating GHG significance thresholds since April 2008. Most recently, in September 2010, SCAQMD proposed a tiered efficiency target approach to evaluate potential GHG impacts from various uses. This tiered approach allowed for flexibility when analyzing GHG emissions based on project size, land use type, or other characteristics. The various tiers include: (1) potential CEQA exemptions for certain projects; (2) compliance with a qualified GHG reduction strategy; (3) comparison with separate screening level thresholds for industrial (10,000 $MTCO_2e$/year), commercial (1,400 $MTCO_2e$/year), residential (3,500 $MTCO_2e$/year), and mixed-use (3,000 $MTCO_2e$/year) projects or comparison against a single numerical screening threshold of 3,000 $MTCO_2e$/year for all non-industrial projects; (4) consistency with compliance options, including a performance-based reduction analysis (i.e., compare with a Business-As-Usual level), compliance with AB 32, and/or comparison with efficiency-based thresholds (i.e., quantitative thresholds that are based on a per capita efficiency metric; 4.8 $MTCO_2e$/service population/year for project level analysis and 6.6 $MTCO_2e$/service population/year for plan level analysis); and/or (5) implement offsite mitigation to reduce GHG emission impacts to a less-than-significant level. The draft GHG guidance is included as part of the periodic updates to SCAQMD's Air Quality Handbook; however, the SCAQMD draft interim guidance was never officially adopted. Additionally, the efficiency targets proposed under SCAQMD's Tier 4 threshold are no longer applicable as they were specific to outdated AB 32 goals and do not consider the recently adopted 2030 GHG

reduction targets contained in SB 32 and EO B-30-15. Instead, the 2022 Climate Change Scoping Plan was recently approved by CARB in December 2022, and sets the state on a course to reduce GHG emissions an additional 85 percent below 1990 levels by 2045 under AB 1279 (CARB 2022). Under the previous 2017 Climate Scoping Plan, the CARB recommended statewide efficiency targets of no more than 6.0 $MTCO_2e$/service population/year by 2030 and no more than 2.0 $MTCO_2e$/service population/year by 2050 (CARB 2017b); however, it is important to note that these efficiency targets were intended to apply to sum of all sectors and are not appropriate for evaluating GHG emissions specific to the land use sector, such as the proposed Project. To date, the CARB, SCAQMD, and the City have not adopted new efficiency targets established consistent with AB 1279 for the 2045 target year; however, various other organizations have published technical guidance evaluating potential 2030 efficiency metrics. For instance, in October 2016, the Association of Environmental Professionals (AEP) published *The Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California* (2016). AEP's technical guidance presents data and calculations for a potential adjusted statewide 1990 land use sector emissions inventory and new metric for 2030 of 2.7 $MTCO_2e$/service population/year for the land use sector.

In addition to evaluation of a projects impacts against a quantifiable significant threshold, per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can also be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions." Thus, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with programs and/or other regulatory schemes to reduce GHG emissions.

In light of this shifting regulatory environment and available threshold concepts recommended by expert agencies, for the purposes of this CEQA analysis, a project's contribution to cumulative impacts to global climate change would be considered significant if the proposed project would:

- Generate net new GHG emissions exceeding the numeric threshold of 10,000 $MTCO_2e$/year for industrial projects; or
- Conflict with (and thereby be inconsistent with) the applicable regulatory plans and policies to reduce GHG emissions, which include the emissions reduction measures included within the Green Building Code, SCAG's 2016-2040 RTP/SCS; AB/SB 32, AB 1279, and SB 375; the OPR and Climate Action Team recommendations; and CARB's Climate Change Scoping Plan.

4.3 Project Impacts and Mitigation Measures

4.3.1 Air Quality

Impact a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Under this criterion, the SCAQMD recommends demonstration that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment) upon which the air quality plan is based. As demonstrated for *Impact Criteria (b)* below, the proposed Project's long-term (operational) emissions will be below levels that the SCAQMD considers to be a significant impact. As such, the 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 timely attainment of air quality standards.

Conformance with the SCAQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections, meeting the land use designation set forth in the local General Plan, and comparing assumed emissions in the AQMP to proposed emissions. Although the Project does not propose changes to the existing land use, operations will remain consistent with the General Industrial land use as designated in the City of Signal Hill Land Use Element. Further, while the proposed Project would require up to approximately 50 additional workers per day, these jobs would be expected to be filled from the local labor market. Thus, it is not anticipated that a substantial number of workers would move to the region to work at the Facility. Accordingly, the Project will not significantly affect any regional population, housing, and employment projections prepared for the region. Projects that are consistent with the projections of employment and population forecasts identified in the RTP/SCS prepared by SCAG are considered consistent with the SCAQMD's AQMP growth projections, since the RTP/SCS forms the basis of the land use and transportation control portions of the SCAQMP. According to the SCAQMP, the SCAB had a population of 16.7 million in 2018 and is projected to have a population of 17.2 million by the year 2027 (these numbers are derived from the 2020-2045 RTP/SCS prepared by SCAG). According to the Growth Forecast Technical Report prepared by SCAG for the 2020-2045 RTP/SCS, the City of Signal Hill is projected to increase employment by 800 employees from 2020 through 2035. The number of employees that will be added is well within SCAG's growth forecast for the City of Signal Hill.

The proposed Project would also comply with CARB requirements to minimize emissions from on-road and off-road diesel equipment as set forth in CCR Title 13, Sections 2485 and 2449. Pursuant to SCAQMD Rule 403, the Project would be required to comply with regulations for controlling fugitive dust. As noted in Section 1.2.3, the entire fleet of collection vehicles is comprised of RNG powered trucks, thus in ahead of the implementation schedule specified by SCAQMD Rule 1193 which requires operators to acquire alternative-fuel refuse collection heavy-duty vehicles.

Thus, the proposed Project will not conflict with the regional growth forecast and distribution in the SCAQMP. Because the proposed Project complies with local land use plans and growth projections and would not exceed SCAQMD's regional mass daily emissions thresholds, the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be ***less than significant***.

Mitigation Measure(s)

None Required

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

As shown in **Table 8**, the criteria pollutants for which the project area is in state nonattainment under applicable air quality standards are O_3, PM_{10}, and $PM_{2.5}$. The SCAQMD's application of thresholds of significance for criteria air pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. Expanded operations at the Facility would result in the long-term increase in criteria pollutant emissions from engine exhaust during on-road vehicle and truck trips and off-road equipment operations. As noted in **Section 1.2.2**, with the exception of the additional off-road equipment use, handling and processing of the additional 1,000 tpd would not substantially increase energy or water consumption at the Facility, nor would other area source emissions (e.g., consumer product use and architectural coating application) change from existing conditions. **Table 14** summarizes the estimated unmitigated maximum daily emissions during operations. For the purpose of comparing Project-related emissions to the SCAQMD LST, mobile-source emissions were excluded (i.e., only emissions generated at the Facility are compared to the LST as mobile-source emissions associated with vehicle travel to/from the Facility would be more broadly dispersed throughout the region and would not represent a localized risk to sensitive receptors near the Facility).

Table 14. Unmitigated Maximum Daily Project Operations-Generated Emissions

Pollutant	Total Project Emissions (lbs/day)	SCAQMD Threshold (lbs/day)	Onsite Localized Project Emissions (lbs/day)[1]	SCAQMD LST Threshold (lb/day)	Exceed Thresholds?
ROG	1.97	75	0.08	--	No
NOx	20.19	100	0.77	87	No

CO	29.55	550	0.50	1,611	No
SO_2	0.21	150	0.002	--	No
PM_{10}	10.31	150	0.03	9	No
$PM_{2.5}$	2.87	55	0.02	4	No

Source: CalEEMod Results in Attachment A

Note that emissions are representative of the maximum daily output (i.e., maximum of summer or winter results).

[1] For the purpose of comparing to the LST, mobile-source emissions (i.e., emissions associated with vehicle travel to/from the Facility which are reflective of emissions that are widely dispersed throughout the City and not reflective of localized emissions).

As summarized in **Table 14**, unmitigated operations-related ROG, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$ would be below the SCAQMD significance thresholds. Although the Project emissions would not exceed the SCAQMD thresholds, on-road vehicles and off-road equipment must comply with the anti-idling requirements set forth in CCR Title 13, Sections 2485 and 2449 and SCAQMD Rule 403 regulations for controlling fugitive dust which would further reduce impacts associated with fugitive dust emissions. The SCAQMD *White Paper on Potential Control Strategies to Address Cumulative Impacts* (2003) addresses cumulative impacts of air pollution and notes that projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. Specifically, the SCAQMD cumulative significance thresholds are the same as project-specific significance thresholds. Therefore, potential adverse impacts associated with the proposed Project would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. The court upheld the SCAQMD's approach to utilizing the established significance thresholds to determine whether the impacts of a project would be cumulatively considerable in *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) Cal. App. 4th 899. Thus, it may be concluded that expanded operation at the Facility would not significantly contribute to an existing violation of air quality standards for regional pollutants (e.g., ozone) and will not contribute to a significant and unavoidable cumulative air quality impact. In terms of local air quality, the Project activities would not produce significant emissions exceeding the SCAQMD's LSTs for NO_X, CO, PM_{10}, or $PM_{2.5}$. Therefore, the Project's potential to result in a cumulatively considerable net increase of any criteria pollutant during operations is considered ***less than significant***.

Mitigation Measure(s)

None Required

Impact c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Land uses that are generally considered more sensitive to air pollution than others are as follows: hospitals, schools, residences, playgrounds, child-care centers, athletic facilities, and

retirement/convalescent homes. As summarized in **Table 11** above, several sensitive receptors surround the Project site.

Project operations would result in long-term project-generated emissions of DPM, ROG, NO_X, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment and operations-related vehicle traffic. As discussed above, SCAQMD has developed LST look-up tables for project sites that are one, two, and five acres in size to simplify evaluation of localized emissions at small sites. LSTs are provided for each source receptor area and various distances from the source of emissions and represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards in the affected area. As discussed for *Impact Criteria (b)* above, operational emissions were calculated with SCAQMD's CalEEMod model. The predicted emissions associated with the Project are presented in **Table 14** above. As shown in **Table 14**, operation activities would not exceed the SCAQMD's LST for the specified pollutants for receptors that are within 100 meters of the Facility. Therefore, based on SCAQMD guidance, localized emissions of criteria pollutants would not have the potential to expose sensitive receptors to substantial concentrations that would present a public health concern.

The primary TAC that would be generated by on-road and off-road activities is DPM which would be released from the exhaust stacks of off-road equipment and diesel transfer trucks. According to SCAQMD methodology, health risks from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 30-year period will contract cancer based on the use of standard risk-assessment methodology. As summarized in **Section 4.1**, a Health Risk Assessment was conducted for the Facility as part of the 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009). The Health Risk Assessment conducted in 2009 included emissions associated with off-road equipment and on-road mobile sources. The primary toxic pollutant considered in the analysis was DPM. Note that for the purposes of the Health Risk Assessment, off-site emissions released from transport trucks along the highways and roadways were determined to result in less than significant air quality and health impacts since they would be distributed and diluted over a relatively wide area (100 square miles, or greater). Accordingly, on-site emissions localized to the Project site were considered in the analysis of health impacts on nearby sensitive receptors. Operational on-site emissions analyzed included mobile and idling emissions associated with 340 collection trucks, 600 self-haul vehicles, 136 transfer trucks, 50 employee vehicles traveling to and from the Facility, as well as emissions associated with off-road diesel equipment during truck unloading. The Health Risk Assessment assumed that DPM emissions would remain the same for the next 70 years with residential cancer risk assuming a lifetime of exposure (i.e., 24-hours per day, 7 days per week over 70 years) and worker cancer risk assuming 40 years of exposure (i.e., 8 hours per day for 50 weeks per year). However, in reality DPM emissions associated with Project operations have significantly decreased with the transition of the entire collection truck fleet to renewable natural gas vehicles. The conservative results of the Health Risk Assessment for operations handling up to 1,500 tpd of refuse indicated that the maximum cancer risk at the nearest sensitive receptor (500 feet south of the Facility) would be between 0.5 to less than 0.01 cancer per one million depending on the location. The maximum cancer risk at the nearest business location (150 feet west of the Facility) was estimated to be 0.1 cancers per one million. These results are below the SCAQMD thresholds of cancer risks of less than 10 cancers per one million or 0.5 excess cancer cases (in areas ≥ 1 in 1 million). The proposed expanded operations at the Facility

would result in less truck trips and off-road equipment activity as was considered in the 2009 Health Risk Assessment. Further, the entire fleet of collection trucks has since been replaced with RNG powered vehicles. Thus, the health risks associated with the proposed Project would be less than was modeled in the original Health Risk Assessment for the Facility. Compliance with CARB Heavy-Duty On-Road and Off-Road Vehicle Regulations that limit idling to no more than five minutes would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions.

As noted in **Section 1.1**, the Facility is designated as a PHHWCF. The handling and transport of hazardous waste collected by the Facility is regulated by CCR Title 22, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*, as well as other State and federal regulations. Required compliance with hazardous waste handling, transport, and disposal regulations would ensure sensitive receptors are not exposed to substantial concentrations TACs resulting from continued operation of the PHHWCF at the Facility.

Long-term operations of the Project would generate additional traffic that produces off-site emissions, potentially contributing to localized concentrations of "CO hotspots." Specifically, vehicle exhaust is the primary source of CO. In an urban setting, the highest CO concentrations are generally found within close proximity to congested intersections. A "CO hotspot" is a localized concentration of CO that is above the State or national one-hour or eight-hour CO ambient air standards. Projects may worsen air quality if they increase the percentage of vehicles in cold start modes by two percent or more; significantly increase traffic volumes (by five percent or more) over existing volumes; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at Level of Service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F. While the Project would generate additional traffic on the local roadways, the traffic study completed for the project demonstrates that the net increase of vehicle trips to the existing traffic volumes on the local roadways would be relatively small and would not increase average delay at intersections operating at LOS E or F and would not contribute to a decrease of LOS along circulation routes. Accordingly, Project-related vehicle trips are not expected to result in exceedances of CO air quality standards at roadways in the area due to three key factors. First, CO hotspots are extremely rare and only occur in the presence of unusual atmospheric conditions and extremely cold conditions, neither of which applies to this Project area. Second, auto-related emissions of CO continue to decline because of advances in fuel combustion technology in the vehicle fleet. Finally, the traffic study conducted for the Project demonstrates that the Project would not substantially worsen conditions on local roads.

In summary, the Project would not contribute to an increase in health risk associated with TACs, including DPM and would not contribute to localized "CO hotspots." Compliance with CCR Title 22, Division 4.5, *Environmental Health Standards for the Management of Hazardous Waste*, as well as the anti-idling requirements set forth in CCR Title 13, Sections 2485 and 2449, would further ensure sensitive receptors are not exposed to substantial pollutant concentrations. Therefore, the Project's operational air quality impacts on local sensitive receptors would be ***less than significant***.

Mitigation Measure(s)

None Required

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

The handling of refuse, greenwaste and recyclable material has the potential to release odors. These materials are processed inside the Facility buildings. These buildings are equipped with a misting system that spray water and odor neutralizers to mitigate dust and odors. The building ventilation system also includes roof mounted exhaust fans equipped with filters to retain dust. Implementation of the proposed Project would not result in new sources of odors or substantial changes to the intensity of existing odors at the Facility. Further, waste arriving at the EDCO Station is required by law to be covered or transported in enclosed vehicles. Waste is unloaded inside the enclosed processing structure. Since all the processes would occur inside an enclosed building, uncontrolled odors could not migrate off-site. The fans and misting system effectively treat odors and dust prior to discharge into the atmosphere. As noted previously, the Facility is subject to SCAQMD permit requirements and specifically the prohibitory Rule 410 which establishes odor management practices and requirements to reduce odors from transfer stations and MRFs. Further, nonrecyclable solid waste is compacted and transported off-site to the final disposal facility (e.g., landfill) within 48 hours, in accordance with State regulations for solid waste handling (CCR Title 14, Division 7, Chapter 3, Minimum Standards for Solid Waste Handling and Disposal) minimizing odors from the decomposition of organic matter during transport and at the Facility. Therefore, the Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be ***less than significant***.

Mitigation Measure(s)

None Required

4.3.2 Greenhouse Gas

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

The increase in mobile source and off-road equipment emission associated with the Project would generate GHG emissions over the life of the Project. Project-related GHG emissions were estimated using SCAQMD's CalEEMod 2022.1 model (refer to Attachment A). As presented in **Section 1.2**, long-term operational sources of GHG include mobile source emissions associated with the additional worker vehicle trips, collection truck trips, and transfer truck trips. The additional usage of off-road equipment (i.e., loaders) onsite would also generate GHG emissions. Other typical sources of GHGs such landscape maintenance equipment, use of consumer products, and other everyday sources, energy source emissions emitted as a result of activities in buildings when electricity and natural gas are used as energy sources, and emissions related to solid waste, water usage, and wastewater generation were assumed to not change from existing conditions and thus were excluded from the model. Accordingly, Project-related GHG emissions are summarized in **Table 15**.

Table 15. Annual Operational GHG Emissions

Emission Source	GHG ($MTCO_2e$/year)

Mobile	2,876.4
Area	0
Energy	0
Water	0
Waste	0
Refrigerants	0
Off-Road	37.77
TOTAL	**2,914.2**
Threshold	**10,000**
Exceed Threshold?	*No*

Source: CalEEMod Results in Attachment A

As summarized in **Table 15** above, total GHG emissions would be approximately 2,914.2 $MTCO_2e$. However, this estimate is based on the combustion emissions of natural gas and do not account for the net negative GHGs associated with RNG. As detailed in **Section 1.2.1**, the entire collection truck fleet is comprised of RNG powered vehicles. The GHG benefits of using RNG in trucks versus traditional diesel trucks has been quantified in the *California Climate Investments Quantification Methodology Emission Factor Database* (Database) which provides well-to-wheel emission factors for various fuel types, including RNG. The RNG fuel-specific factor provided in the Database is -107.63 grams CO_2e per standard cubic foot (scf). Using a "diesel gallon equivalent" (dge) factor of 139.30 scf/dge and a fuel economy of 0.1531 dge/mile for natural gas trucks, the net GHG emissions per year associated with collection vehicle travel (i.e., 2,280 VMT per day over 260 days per year = 592,800 miles per year) is estimated to be -1360.71 $MTCO_2e$/year. Thus, the Project would result in net negative GHG emissions. Although GHG emissions associated with increased activity associated with the transport and processing of the additional 1,000 tpd of refuse, it's important to note that the Project would not cause the generation of any new waste materials in the region and would instead process waste materials that are, in the baseline condition, currently processed at other existing waste sorting and transferring facilities within the region. Therefore, nearly all, if not all, waste hauling trips to and from the Facility would be redirected existing trips by waste collection vehicles. These vehicles would be (and are, already) collecting solid waste near the City of Signal Hill with or without the proposed Project, and these trips would (and do currently) go to other existing materials processing and sorting facilities, if the permitted capacity of the Facility was not expanded. Operation of MRF/Transfer Station facilities in urban areas will generally always result in improved waste hauling trip regional efficiencies. The primary purpose of an MRF/Transfer Station is to maximize resource recovery and increase the quantity of compostable and recyclable materials diverted from landfills. Utilization of MRF/Transfer facilities closer to urban waste generation markets (i.e., the neighborhoods and communities from which solid waste is collected), minimizes the travel distance of waste collection vehicles, which in turn, reduces GHG emissions.

As summarized in **Section 4.2.2**, the SCAQMD does not have adopted numeric thresholds for GHG emissions for CEQA. Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "air quality attainment or

maintenance plan and/or plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significance for GHG emissions if a project complies with regulatory programs to reduce GHG emissions.

The significance of the proposed project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b) by considering whether the proposed project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. At the time of this writing, the City of Signal Hill has not developed an applicable Climate Action Plan. Therefore, for the purposes of this analysis, the applicable GHG reduction plan to evaluate the proposed Project against is the CARB 2022 Scoping Plan Update which outlines the framework to achieve the GHG emission reduction goals of AB 1279. Measures included in the Scoping Plan update would indirectly address GHG emission levels associated with Project activities, including the phasing-in of cleaner technology for diesel engine fleets (including transfer trucks and off-road equipment) and the development of a low-carbon fuel standard. Policies formulated under the mandate of AB 32 that apply to Project operations either directly or indirectly, are assumed to be implemented Statewide and would affect the Project should those policies be implemented during the life of the Project. Specifically, implementation of AB 32 control measures for reduced vehicle emissions would decrease GHG emissions from the Project. The Project would also directly support the CARB Scoping Plan's Key Recommended Actions for the waste and energy sectors. The Scoping Plan states, "meeting the AB 341 mandate 75 percent recycling goal is the best path forward to maximizing GHG emissions reductions from the waste management sector." The purpose of the Project is to accommodate the separate sorting lines required to meet the state-level diversion requirements (AB 341). Thus, the Project supports AB 341, AB 1826, and the Scoping Plan waste reduction goals.

In addition, the proposed Project would not conflict with population growth projections of the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), or its goals associated with GHG reductions. Specifically, the Project is anticipated to add 50 employees, which is well within the growth forecasts contained in the 2020-2045 RTP/SCS and the proposed Project would not contribute to growth outside of those projections.

The plan consistency analysis above demonstrates that the project is consistent with plans, policies, regulations and GHG reduction actions/strategies outlined in CARB's Scoping Plan and SCAG's 2020-2045 RTP/SCS. As the proposed Project would not conflict with applicable plans, policies, and regulations adopted for the purpose of reducing emissions of GHGs, the proposed project's impacts related to GHG emissions would be less than significant. Further, based on the results of the quantitative analysis as described above, the Project would potentially result in net negative GHG emissions (with consideration given to the use of RNG in the collection truck fleet). Without taking credit for the GHG benefits of using RNG, the estimated Project-related GHG emissions are 2,914.2 $MTCO_2e$ per year. This is well below the threshold of 10,000 $MTCO_2e$ per year established by the SCAQMD for industrial projects. Because the Project is consistent and does not conflict with the applicable plans, policies, and regulations, and because the Project's incremental increase in GHG emissions is below the applicable numeric threshold of 10,000 $MTCO_2e$ per year, impacts would be ***less than significant***.

Mitigation Measure(s)

None Required

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

As described above, California has enacted several pieces of legislation that relate to GHG emissions and climate change, much of which sets aggressive goals for GHG reductions within the state. The first and most far-reaching is AB 32, now followed by SB 32, and AB 1279 in which CARB must ensure that statewide GHG emissions are reduced to 85 percent below the 1990 level by 2045. While AB 32 establishes control measures that would apply to light, medium, and heavy-duty vehicles, and the proposed Project would operate those types of vehicles, these measures are being implemented at the state level and the proposed Project would not interfere with the implementation of the control measures. Implementation of AB 32 control measures for reduced vehicle emissions would decrease GHG emissions from the Project. Further, the Project would be consistent with the CARB's 2022 Scoping Plan, and SCAG's 2020–2045 RTP/SCS, therefore, would neither generate GHG emissions that may have a significant impact on the environment nor conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Specifically, the Project would not conflict with the emission reduction measures discussed within CARB's 2022 Scoping Plan Update or the strategies within the 2022 Scoping Plan Update adopted for the purpose of meeting the GHG reduction goals of AB 1279, particularly their emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, the Project would directly support the CARB Scoping Plan's Key Recommended Actions for the waste and energy sectors. The Scoping Plan states, "meeting the AB 341 mandate 75 percent recycling goal is the best path forward to maximizing GHG emissions reductions from the waste management sector." The purpose of the project is to accommodate the separate sorting lines required to meet the state-level diversion requirements (AB 341). Thus, the Project supports AB 341, AB 1826, and the Scoping Plan waste reduction goals. Accordingly, the proposed Project would be conducted in compliance with applicable plans, policies and regulations adopted for the purpose of reducing the emissions of GHGs and impacts would be ***less than significant***.

Mitigation Measure(s)

None Required

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Appendix E Noise Technical Report

Noise Technical Report

EDCO Expansion Project
Signal Hill, California

Prepared for: City of Signal Hill

May 8, 2024

Innovative solutions for a complex world

Catalyst ENVIRONMENTAL SOLUTIONS

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SECTION 1 Introduction

Catalyst Environmental Solutions Corporation (Catalyst) has prepared this report to evaluate the potential for impacts related to noise resulting from the proposed expansion of operations at the EDCO Recycling and Transfer Material Recovery Facility (Facility) in the City of Singal Hill, California. This report includes an evaluation of potential impacts associated with the permanent increases in noise in the vicinity of the Project site and whether Project-induced noise is in excess of standards established by the City of Signal Hill. Site-specific operations activity information used for noise models is based on information provided by EDCO Signal Hill.

1.1 Project Overview

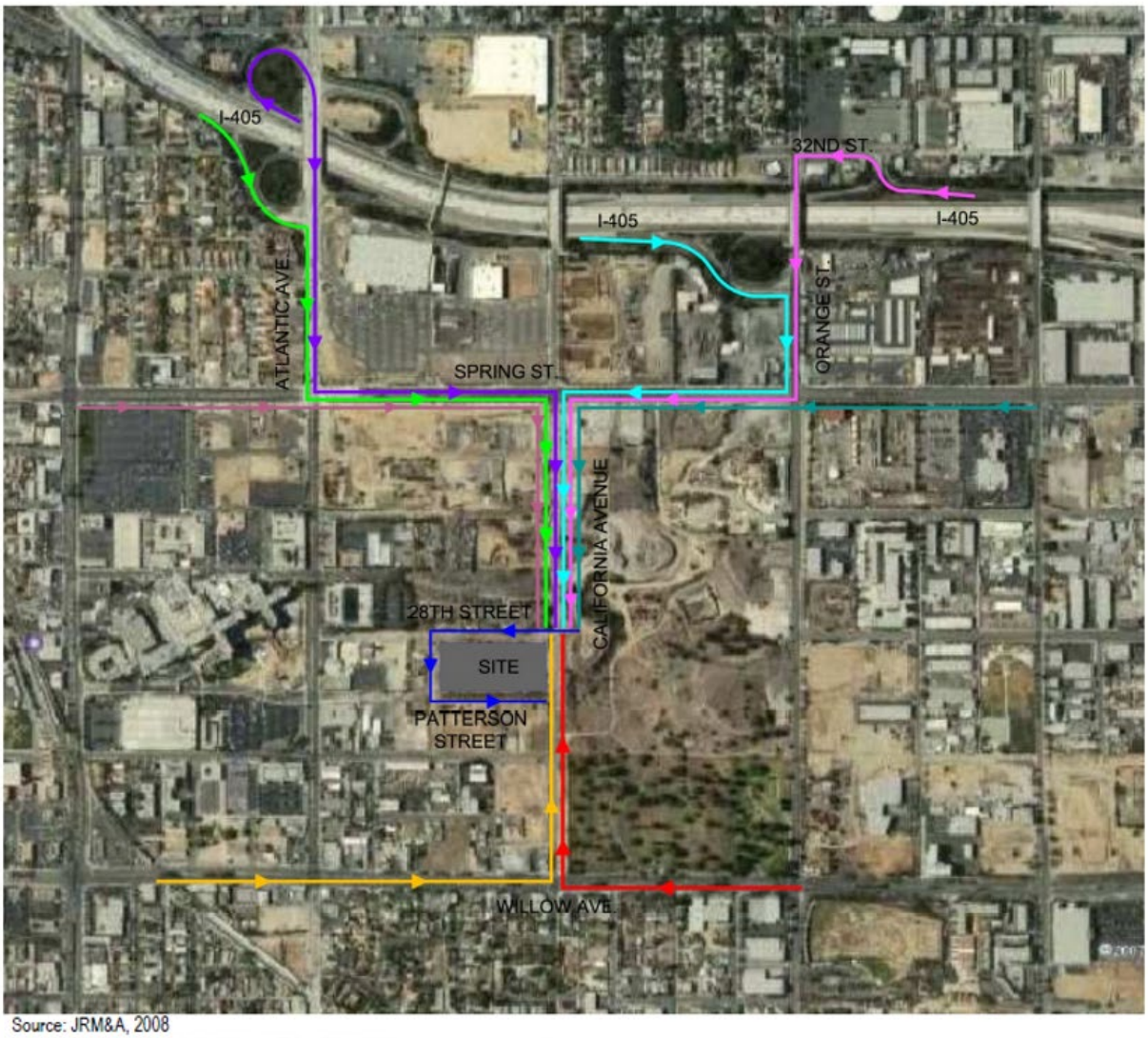
1.1.1 Project Location and Description

The Facility is owned and operated by EDCO Transport Services and is located on privately owned land. The Facility is a 3.75-acre site located at 2755 California Avenue, Signal Hill, California (**Figure 1**). The Facility's Assessor's Parcel Number (APN) is 7207-022-043 in Township 4 South, Range 12 West. The site is zoned as General Industrial Specific Plan (SP-19) with the Facility currently operating in Area 3 of the SP-19 under Conditional Use Permit 09-01 granted on February 17, 2009.

The activities of the Facility include the manual sorting and transfer of residential, commercial and industrial refuse, transfer of self-haul public refuse, processing of materials collected by curbside recycling programs, a public drop-off area for recyclable materials, and a Permanent Household Hazardous Waste Collection Facility (PHHWCF). Once offloaded inside the Facility, waste is loaded into transfer trucks and then transported to a permitted landfill.

Access to the Facility is from California Avenue and 28th Street. The primary route of delivery to the Facility traveling south on Interstate 405 (I-405) is exit to Atlantic Avenue. Proceed south on Atlantic Avenue and turn east onto Spring Street. Proceed east on Spring Street and turn south onto California Avenue. Then proceed south on California Avenue to 28th Street and turn west to access Facility. The primary route of delivery to the Facility traveling north on I-405 is exit Orange Avenue off ramp, turn west onto East 32nd Street and proceed to Orange Avenue. Turn south on Orange Avenue, continue to Spring Street, turn west and then proceed to California Avenue and turn south. After turning onto California Avenue, proceed to 28th Street and turn west to access the site. Arrival and departure routes are illustrated in **Figure 2** and **Figure 3**, respectively.

Figure 1 Project Site



Source: JRM&A, 2008

CIRCULATION LEGEND

I-405 SOUTH EXIT ATLANTIC AVE. OFF RAMP,
RIGHT ON ATLANTIC AVE.(SOUTH),
LEFT ON SPRING ST.(EAST),
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 SOUTH EXIT ORANGE ST. OFF RAMP,
RIGHT ON ORANGE ST.(SOUTH),
RIGHT ON SPRING ST.(WEST),
LEFT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 NORTH EXIT ORANGE ST. OFF RAMP,
LEFT ON EAST 32ND ST.(WEST)
LEFT ON ORANGE ST.(SOUTH)
RIGHT ON SPRING ST.(WEST),
LEFT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

I-405 NORTH EXIT ATLANTIC AVE. OFF RAMP
LEFT ON ATLANTIC AVE.(SOUTH)
LEFT ON SPRING ST.(EAST),
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

WILLOW AVE. WEST,
RIGHT ON CALIFORNIA AVE.(NORTH)
LEFT ON 28TH ST.(WEST)
ACCESS SITE

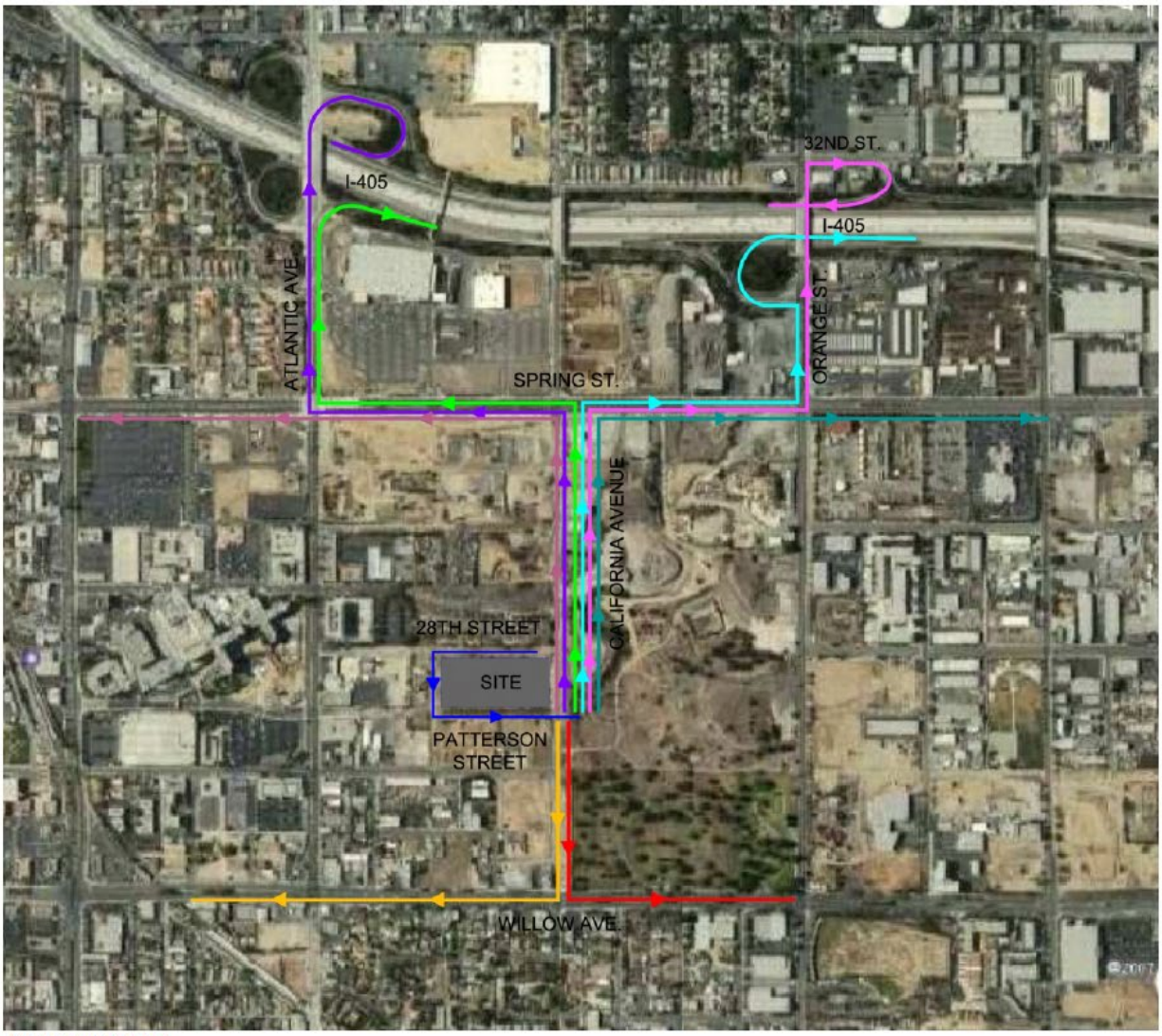
WILLOW AVE. EAST
LEFT ON CALIFORNIA AVE.(NORTH)
LEFT ON 28TH ST.(WEST)
ACCESS SITE

SPRING STREET HEADING EAST,
RIGHT ON CALIFORNIA AVE.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

SPRING STREET HEADING WEST,
RIGHT ON CALIFORNIA ST.(SOUTH),
RIGHT ON 28TH ST.(WEST)
ACCESS SITE

SITE CIRCULATION

Figure 2 Offsite Circulation: Arrival Routes



Source: JRM&A, 2008

CIRCULATION LEGEND

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST),
RIGHT AT ATLANTIC AVE(NORTH),
FAR RIGHT LANE TO I-405 SOUTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),
LEFT AT ORANGE ST.(NORTH),
LEFT TURN LANE TO I-405 SOUTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST),
RIGHT AT ATLANTIC AVE.(NORTH),
RIGHT LANE OVER BRIDGE
TO I-405 NORTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),
LEFT AT ORANGE ST.(NORTH),
RIGHT LANE TO EAST 32ND STREET,
TURN RIGHT(SOUTH) AT I-405 NORTHBOUND RAMP

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
LEFT AT SPRING ST.(WEST).

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
LEFT AT CALIFORNIA AVE.(NORTH),
RIGHT AT SPRING ST.(EAST),

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
RIGHT AT CALIFORNIA AVE.(SOUTH),
RIGHT AT WILLOW AVE.(WEST)

EXIT SITE LEFT ONTO PATTERSON ST.(EAST),
RIGHT AT CALIFORNIA AVE.(SOUTH),
LEFT AT WILLOW AVE.(EAST)

SITE CIRCULATION

Figure 3 Offsite Circulation: Departure Routes

1.1.2 Existing Operations

The operation of this Facility requires a Solid Waste Facility Permit (SWFP) issued from the Local Enforcement Agency (LEA) and concurred with by the State of California Department of Resources Recycling and Recovery (CalRecycle). The City of Signal Hill has designated the County of Los Angeles, Department of Public Health as its LEA. Accordingly, the current and valid operating permit, 19-AA-1112, is regulated by the County of Los Angeles, Department of Public Health, which serves as the regional regulatory arm of CalRecycle and is responsible for the monthly inspection of the Facility for conditions related to noise, odor, dust, traffic, vectors, and hazardous materials.

All materials entering the Facility are dumped on the concrete tipping floor located in the enclosed MRF/Transfer Station building. The Transfer Station tipping floor area is approximately 32,572 sqft feet. Designated recyclable material is dumped and stored along the west side of the building. Recyclable material that are floor-separated from the Transfer Station municipal solid waste piles are transferred to designated containers and bins located in the MRF. Once full, these materials are transported to secondary materials markets. Storage and transportation records are maintained in the main office building for auditing purposes. **Table 1** lists the materials accepted for disposal at the EDCO Facility. **Table 2** lists the materials that are not accepted at the EDCO Facility.

Table 1. Materials Accepted for Disposal at the EDCO Facility

Material Category	Items Accepted
Municipal solid waste	Residential, Commercial, Industrial
Organics	Residential curbside and commercial green waste and food waste
Recyclables	Source separated, single stream and commercial recyclables, Construction and industrial recyclables
Construction and demolition materials	All
Self-haul	All
Household Hazardous Waste (The Facility only accepts HHW during PHHWCF events that are coordinated with the City of Signal Hill and the County of Los Angeles Public Works Department. HHW is not accepted outside of these designated events that are overseen by EDCO partners.)	Non-controlled pharmaceuticals, Needles and syringes, Antifreeze, Cleaning supplies, cosmetics, used motor oil, pesticides, Batteries including car batteries and household batteries, fluorescent light bulbs, TVs, computers, VCRs, stereos, and cell phones.
Universal Waste	All
Salvageable Items	Newsprint, Corrugated containers, Plastic containers (California Redemption Value [CRV] and non-CRV), Mixed plastics, Aluminum cans (CRV and non-CRV), High-grade paper, Mixed paper (including junk mail), Styrofoam,

Material Category	Items Accepted
	Ferrous and bi-metal containers, Glass containers, Aseptic cartons

Table 2. Materials Not Accepted for Disposal at the EDCO Facility

Material Category	Specific Items
Hazardous Waste	Designated wastes (profiled hazardous materials) are not accepted at the Facility. Other than household hazardous waste, no sludge, liquids, infectious, medical or hazardous materials are accepted at the Facility.
Non-Salvageable Items	The Facility does not accept any cosmetics, beverages, hazardous chemicals, poisons, pesticides or other materials capable of endangering public health.
High Liquid Content Waste	The Facility does not accept any publicly owned treatment works sludge or residuals. It also does not accept industrial wastewater treatment sludge, septic tank pumping, chemical toilet wastes or liquid wastes. The Facility does accept saturated waste less than 15% liquid content, as long as the liquid is non-hazardous.
Household Hazardous Wastes	Household hazardous waste not accepted at any time: ammunition, marine flares, radioactive materials, controlled substances, tires, or large household goods (refrigerators, washing machines, etc.)
Other Wastes Requiring Special Handling	CalRecycle designated special wastes.

The Facility is designed to process 6,336 tons per day (tpd). However, the current CUP limits the operational capacity to 1,500 tpd. Recently, the LEA issued an emergency waiver(s) of terms and conditions of the EDCO Transport Services Sold Waste Facility Permit #19-AA-1112 during the declared State emergency, as result of the Coronavirus (COVID-19). These waivers were issued in 120-day increments on November 5, 2020, March 4, 2021, July 7, 2021, October 27, 2021, March 4, 2022, June 28, 2022, and again October 19, 2022, which allowed the Facility to operate at up to 2,500 tpd.

The existing CUP mandates that all ingress and egress from the Facility shall follow the circulation routes depicted in **Figure 4** and that all trucks en route to and departing the Facility shall follow the off-site circulation routes depicted on **Figure 2** and **Figure 3** above. Further, the CUP requires that employee shifts are schedule so that employees do not arrive or depart during peak traffic hours as detailed in **Table 3.**

Table 3. Hourly Distribution of Vehicles (Existing Operations @ 1,500 tpd)

Time	Collection Trucks	Self-Haul Vehicles	Transfer Trucks	Staff Vehicles	Total Vehicles
10:00-11:00 PM	0	0	0	0	0
11:00-12:00 PM	0	0	0	0	0
12:00-1:00 AM	0	0	0	0	0
1:00-2:00 AM	0	0	0	0	0
2:00-3:00 AM	0	0	0	0	0
3:00-4:00 AM	0	0	4	2	6
4:00-5:00 AM	2	0	6	2	10
5:00-6:00 AM	5	0	6	21	32
6:00-7:00 AM	5	10	5	0	20
7:00-8:00 AM	10	15	4	0	29
8:00-9:00 AM	12	25	5	0	42
9:00-10:00 AM	20	30	5	0	55
10:00-11:00 AM	15	35	4	0	54
11:00-12:00 AM	12	45	4	0	61
12:00-1:00 PM	15	30	5	0	50
1:00-2:00 PM	15	35	5	2	57
2:00-3:00 PM	15	30	5	2	52
3:00-4:00 PM	15	25	5	21	66
4:00-5:00 PM	15	20	2	0	37
5:00-6:00 PM	10	0	2	0	12
6:00-7:00 PM	5	0	1	0	6
7:00-8:00 PM	0	0	0	0	0
8:00-9:00 PM	0	0	0	0	0
9:00-10:00 PM	0	0	0	0	0
TOTAL	**171**	**300**	**68**	**50**	**589**

1. Source: 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009)
2. Notes: Shading indicates peak traffic hours.

In general, the Facility plays a significant role in reducing both air emissions and vehicle miles traveled, primarily through the consolidation of loads. Benefits include, but are not limited to:

- Reducing overall community truck traffic by consolidating smaller loads into larger vehicles.
- Reducing air pollution, fuel consumption and road wear by consolidating loads into fewer vehicles.
- Allows for screening of waste for special handling.
- Offers residents a convenient drop-off of waste and recyclables and reduces the overall impact of miles driven to a landfill through load consolidation.

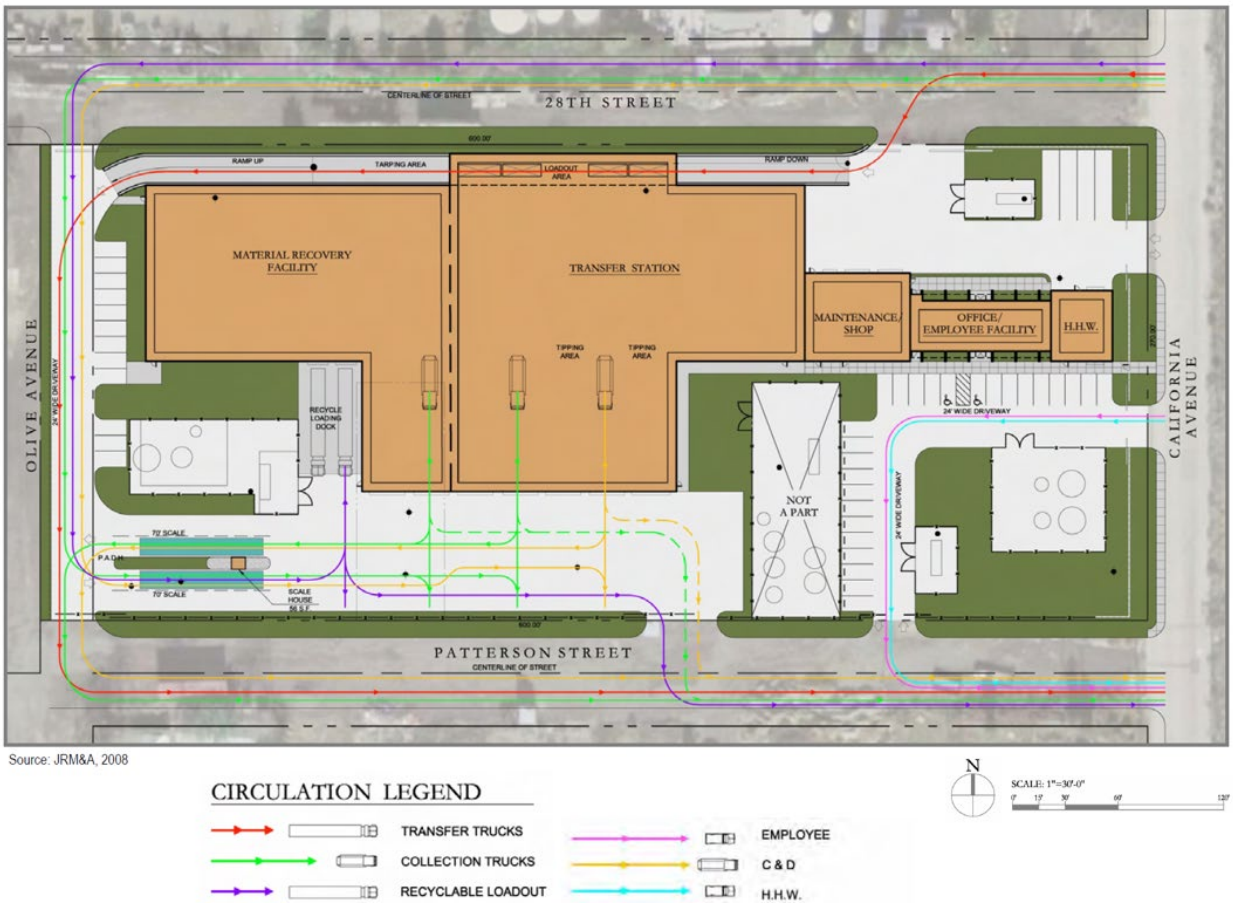


Figure 4. Project Site Access Circulation

1.1.3 Proposed Project

Since the issuance of the CUP in 2009, the continued growth in the region, as well as seasonal surges in the amount of waste generated, and increased public disposal (self-haulers) has increased. In addition, the Southeast Resource Recovery Facility (SERRF) in Long Beach will close on or about June 30, 2024. As such, upon closure of the SSERF, it is anticipated that a percentage of accepted materials that historically was delivered to the SERRF will instead be diverted to the Facility. Thus, the Project proposes to expand its current permitted tonnage limit of 1,500 to 2,500 (tpd).

The ability to safely and effectively operate at this threshold was demonstrated for over 27 months (November 11, 2020 through February 28, 2023) pursuant to Section 17210.3 and subsequently 17210.2(d) of the California Code of Regulations (CCR) Title 14, the LEA issued an emergency waiver(s) of terms and conditions of the EDCO Transport Services Sold Waste Facility Permit #19-AA-1112 during the declared State emergency, as result of the Coronavirus (COVID-19). These waivers were issued in 120-day increments on November 5, 2020, March 4, 2021, July 7, 2021, October 27, 2021, March 4, 2022, June 28, 2022, and again October 19, 2022, which allowed the Facility to operate at up to 2,500 tpd.

Since the design elements allow for up to 6,336 tpd of load out capacity, no physical changes to the Facility are necessary to accommodate the requested increase to a maximum of 2,500 tpd. In addition, the tipping floor can receive and store up to 3,644 tons of material.

This proposed modification would require an adjustment in the permitted vehicle traffic to the Facility and minor increase in off-road equipment operation as detailed further below.

1.1.4 Vehicle trips associated with the Project.

A variety of different types of vehicles utilize the Facility, but they are primarily broken into three categories: collection trucks, transfer tractor/trailers and self-haul/employee vehicles. The Facility is currently permitted for a maximum daily capacity of 1,500 tpd. Using this baseline number, the following assumptions are used to generate the type and number of vehicles anticipated to enter the facility:

- 1,500 tpd of municipal solid waste and recyclable materials.
- Solid waste collection trucks have an average capacity of 7 tons.
- Residual waste transfer trucks (including recyclable materials) have an average capacity of 22 tons.
- Self-haul vehicles have an average of 1 ton.

While the Facility is designed for a maximum daily capacity of 6,336 tpd over a 24-hour period, the 2009 *EDCO Recycling and Transfer Facility Final Environmental Impact Report* (FEIR) (State Clearinghouse SCH # 2008081009), considered a maximum of 1,500 tpd. Using the permitted capacity of 1,500 tpd as a baseline number, the estimated number of commercial trucks accessing the Facility are approximately 239 (171 collection vehicles, 68 transfer tractor trailers) and 350 self-haul/employee passenger vehicles per day. **Table 4** provides a summary of the assumed existing trips, estimated trips, and change in trips from existing conditions under the proposed Project.

Table 4. Trip Generation Summary (Existing versus Proposed Project)

Vehicle Type	Existing (@1,500 tpd)		Project (@2,500 tpd)		Change from Existing
	Vehicles Accessing Facility[1]	ADT (trips/day)[1]	Vehicles Accessing Facility	ADT (trips/day)	ADT (trips/day)
Collection Trucks	171	342	285	570	228
Transfer Trucks	68	136	113	226	90
Self-Haul (Passenger Vehicles)	300	600	500	1,000	400
Employee (Passenger Vehicles)	50	100	100	200	100
TOTAL	**589**	**1,178**	**998**	**1,996**	**818**

3. Notes:

1. As reported in 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009)

The peak hour trip generation for the Project summarized in **Table 5** is based on the hourly trip generation rates for existing operations with trips associated with expanded operations proposed under the Project scaled proportionately for the processing of the additional 1,000 tpd as proposed for the expanded operations under the Project.

Table 5. Hourly Distribution of Vehicles (Project Operations)

Time	Collection Trucks	Self-Haul Vehicles	Transfer Trucks	Staff Vehicles	Total Vehicles
10:00-11:00 PM	0	0	1	0	1
11:00-12:00 PM	0	0	1	0	1
12:00-1:00 AM	0	0	1	0	1
1:00-2:00 AM	0	0	1	0	1
2:00-3:00 AM	0	0	1	0	1
3:00-4:00 AM	0	0	3	2	5
4:00-5:00 AM	3	0	3	2	8
5:00-6:00 AM	6	0	3	21	30
6:00-7:00 AM	6	7	3	0	16
7:00-8:00 AM	7	10	2	0	19
8:00-9:00 AM	6	17	1	0	24
9:00-10:00 AM	10	20	2	0	32
10:00-11:00 AM	10	23	3	0	36
11:00-12:00 AM	10	30	3	0	43
12:00-1:00 PM	10	20	3	0	33
1:00-2:00 PM	10	23	3	2	38
2:00-3:00 PM	10	20	3	2	35
3:00-4:00 PM	10	17	2	21	50
4:00-5:00 PM	6	13	1	0	20
5:00-6:00 PM	6	0	1	0	7
6:00-7:00 PM	4	0	1	0	5
7:00-8:00 PM	0	0	1	0	1
8:00-9:00 PM	0	0	1	0	1
9:00-10:00 PM	0	0	1	0	1
TOTAL	**114**	**200**	**45**	**50**	**408**

4. Notes:
5. Shading indicates peak traffic hours.
6. Hourly trips are calculated based on hourly trip rates presented in the 2009 EDCO Recycling and Transfer Facility Final Environmental Impact Report (FEIR) (State Clearinghouse SCH # 2008081009) and scaled for the processing of 1,000 tpd beyond the existing permitted capacity of 1,500 tpd as was considered in the 2009 FEIR.

1.1.5 Off-Road Equipment Use

Existing operations include the use of diesel loaders for handling and loading refuse at the Facility. Processing of an additional 1,000 tpd would require an increase in the daily operation of diesel off-road equipment at the Facility as detailed in **Table 6**.

Table 6. Project Operations Off-Road Equipment Use

Equipment Type	Additional Daytime (7 a.m. to 10 p.m.) Hours[1]	Additional Nighttime (10 p.m. to 7 a.m.) Hours[1]	Typical Equipment L_{max} at 50 feet from Source[2] (dBA)
Loader Liebherr L1566	1	1	80

7. Notes:
8. Equipment use per EDCO Signal Hill, personal communication (2024)
9. L_{max} noise level from FHWA (2006)

SECTION 2 Fundamental of Noise and Vibration

2.1 Fundamentals of Sound and Environmental Noise

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. When sound becomes excessive or unwanted, it is referred to as noise. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance of the noise and its appropriateness in the setting, the time of day and the type of activity during which the noise occurs, and the sensitivity of the individual.

Sound (noise) levels are measured and quantified with several metrics. All of them use the logarithmic decibel (dB) scale with 0 dB roughly equal to the threshold of human hearing. A property of the decibel scale is that the sound pressure levels of two separate sounds are not directly additive. For example, if a 50 dB sound is added to another 50 dB sound, the total is only a 3 dB increase (to 53 dB). Thus, every 3 dB change in sound levels represents a doubling or halving of sound energy. Related to this is the fact that a less-than-3 dB change in sound levels is imperceptible to the human ear. Sound power level is the acoustic energy emitted by a source which produces a sound pressure level at some distance. While the sound power level of a source is fixed, the sound pressure level depends upon the distance from the source and the acoustic characteristics of the area in which it is located.

The frequency of sound is a measure of the pressure fluctuations per second, measured in hertz (Hz). Most sounds do not consist of a single frequency but consist of a broad band of frequencies differing in level. The characterization of sound level magnitude with respect to frequency is the sound spectrum. Many rating methods exist to analyze sound of different spectra. The method used for this analysis is A-weighting (there are also B- and C-weighting filters). The A-weighted scale (dBA) most closely approximates how the human ear responds to sound at various frequencies by progressively deemphasizing frequency components below 1,000 Hz and above 6,300 Hz and reflects the relative decreased sensitivity of humans to both low and extremely high frequencies (Federal Highway Administration [FHWA] 2018). **Table 7** lists typical sound levels from representative sources.

Table 7. Typical Noise Levels (Measured at a Distance a Person Would Typically be From the Source)

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: California Department of Transportation (CalTrans) 2013

The duration of noise and the time period at which it occurs are important factors in determining the impact of noise. Several methods are used for describing variable sounds including the equivalent level (L_{eq}), the maximum level (L_{max}), and the percent-exceeded levels. These metrics are derived from a large number of moment-to-moment A-weighted sound level measurements. Some common metrics reported in community noise monitoring studies are described below:

- L_{eq}, the equivalent level, can describe any series of noise events of arbitrary duration, although the most common averaging period is hourly. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events, and L_{eq} is the common energy-equivalent sound/noise descriptor.
- L_{max} is the maximum sound level during a given time. L_{max} is typically due to discrete, identifiable events such as an airplane overflight, car or truck passing by, or a dog barking.
- L_{90} is the sound level in dBA exceeded 90 percent of the time during the measurement period. L_{90} is close to the lowest sound level observed. It is essentially the same as the residual sound level, which is the sound level observed when no obvious nearby intermittent noise sources occur.
- L_{50} is the median sound level in dBA exceeded 50 percent of the time during the measurement period.
- L_{10} is the sound level in dBA exceeded only 10 percent of the time. It is close to the maximum level observed during the measurement period. L_{10} is sometimes called the intrusive sound level because it is caused by occasional louder noises like those from passing motor vehicles.

In determining the daily measure of community noise, it is important to account for the difference in human response to daytime and nighttime noise. Noise is more disturbing at night than during the day, and noise indices have been developed to account for the varying duration of noise events over time as well as community response to them. The Day-Night Average Level (L_{dn}) is such an index. L_{dn} represents the 24-hour A-weighted equivalent sound level with a 10 dBA penalty added to the “nighttime” hourly noise levels between 10:00 p.m. and 7:00 a.m. Because of the time-of-day penalties associated with the L_{dn} index, the L_{eq} for a continuously operating sound source during a 24-hour period will be numerically less. The Community Noise Equivalent Level (CNEL), similar to L_{dn}, applies a 10 dBA penalty for noise levels occurring during the nighttime hours between 10:00 p.m. and 7:00 a.m., and a 5 dBA penalty for noise levels the sound levels occurring during evening hours between 7:00 p.m. and 10:00 p.m. CNEL has

been adopted by the State of California to define the community noise environment for development of the community noise element of a General Plan. Noise is also more disturbing the closer a receptor is to the source; noise levels decrease by 6 dB as the distance from its source doubles (FHWA 2011).

2.2 Fundamentals of Vibration

Ground-borne vibration consists of waves transmitted through solid material. Several types of wave motions exist in solids, unlike air, including compressional, shear, torsional, and bending. The solid medium can be excited by forces, moments, or pressure fields. Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hz. Most environmental vibrations consist of a composite or "spectrum" of many frequencies and are generally classified as broadband or random vibrations. The normal frequency range of most ground-borne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.

Vibration may be defined in terms of the displacement, velocity, or acceleration of the particles in the medium material. In environmental assessments, where human response is the primary concern, velocity is commonly used as the descriptor of vibration level, typically expressed in inches per second (in/sec) or millimeters per second (mm/s). The amplitude of vibration can be expressed in terms of the wave peaks or as an average, called the root mean square. The root mean square level is generally used to assess the effect of vibration on humans. Like noise, vibration can be expressed in terms of decibels with a reference velocity of $1x10^{-6}$ in/sec. The abbreviation "VdB" is often used for vibration decibels to reduce the potential for confusion with sound decibels.

Vibration can produce several types of wave motion in solids including compression, shear, and torsion, so the direction in which vibration is measured is significant and should generally be stated as vertical or horizontal. Human perception also depends to some extent on the direction of the vibration energy relative to the axes of the body. In whole-body vibration analysis, the direction parallel to the spine is usually denoted as the z-axis, while the axes perpendicular and parallel to the shoulders are denoted as the x- and y-axes, respectively.

The two primary concerns with project-induced vibration, the potential to damage a structure and the potential to annoy people, are evaluated against different vibration limits. Studies have shown that the threshold of perception for the average person is a peak particle velocity (PPV) in the range of 0.2 to 0.3 mm/s (0.008 to 0.012 in/sec). Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level. Vibration levels for typical construction-related sources of ground-borne vibration are shown in **Table 8** below.

Table 8. Vibration Source Amplitudes for Construction Equipment

Equipment	PPV at 25 feet (in/sec)		Approximate Vibration Velocity Level (Velocity Level in Decibels [VdB])	
	25 feet	50 feet	25 feet	50 feet
Large Bulldozer	0.089	0.031	87	78
Caisson Drilling	0.089	0.031	87	78
Loaded Trucks	0.076	0.027	86	77
Jackhammer	0.035	0.012	79	70
Small Bulldozer	0.003	0.001	58	49

Source: Adapted from CalTrans 2020 and Federal Transit Administration (FTA) 2018

SECTION 3 Regulatory Framework

Federal, state, and local noise regulations and policies that may apply to the proposed Project are described below.

3.1 Federal

3.1.1 Noise Control Act of 1972

USEPA, pursuant to the Noise Control Act of 1972, established guidelines for acceptable noise levels for sensitive receptors such as residential areas, schools, and hospitals. The levels set forth are 55 dBA L_{dn} for outdoor use areas and 45 dBA L_{dn} for indoor use areas, and a maximum level of 70 dBA L_{dn} is identified for all areas to prevent hearing loss (USEPA 1974). These levels provide guidance for local jurisdictions but do not have regulatory enforceability. In the absence of applicable noise limits, the USEPA levels can be used to assess the acceptability of project-related noise.

3.1.2 U.S. Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development (HUD) has also established guidelines for acceptable noise levels for sensitive receivers such as residential areas, schools, and hospitals (24 CFR 51). HUD's noise levels include a two-pronged guidance, one for the desirable noise level and the other for the maximum acceptable noise level. The desirable noise level established by HUD conforms to the USEPA guidance of 55 dBA L_{dn} for outdoor use areas of residential land uses and 45 dBA L_{dn} for indoor areas of residential land uses. The secondary HUD standard establishes a maximum acceptable noise level of 65 dBA L_{dn} for outdoor use areas of residential areas.

3.1.3 Federal Transit Authority

The FTA has published guidance relevant to assessing ground-borne vibration associated with construction activities, which have been applied by other jurisdictions to other types of projects (FTA 2018). For example, engineered concrete and masonry (no plaster) buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage. Buildings extremely susceptible to vibration damage (e.g., historic buildings) can be exposed to ground-borne vibration levels of 0.12 in/sec without experiencing structural damage.

3.2 State

The California Code of Regulations (CCR) has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as shown in **Table 9** below.

The extensive state regulations pertaining to worker noise exposure are applicable to the proposed project (for example California Occupational Safety and Health Administration Occupational Noise Exposure Regulations [8 CCR General Industrial Safety Orders, Article 105, Control of Noise Exposure, Section 5095, et seq.]), for workers in a "central plant" and/or maintenance facility, or for those involved in the use of maintenance equipment or heavy machinery.

Table 9. Estimated Existing Noise Exposure for General Assessment

Land Use Category	Noise Exposure Ranges (dB CNEL) Normally Acceptable[1]	Noise Exposure Ranges (dB CNEL) Conditionally Acceptable[2]	Noise Exposure Ranges (dB CNEL) Normally Unacceptable[3]	Noise Exposure Ranges (dB CNEL) Clearly Unacceptable[4]
Residential: Low-density Single Family, Duplex, Mobile Homes	<60	55-70	70-75	>75
Residential: Multiple Family	<65	60-70	70-75	>75
Transient Lodging: Motels, Hotels	<65	60-70	70-80	>80
Schools, Libraries, Churches, Hospitals, Nursing Homes	<70	60-70	70-80	>80
Auditoriums, Concert Halls, Amphitheaters	Undefined	<70	>65	Undefined
Sports Arena, Outdoor Spectator Sports	Undefined	<75	>70	Undefined
Playgrounds, Neighborhood Parks	<70	67-75	>73	Undefined
Golf Courses, Riding Stables, Water Recreation, Cemeteries	<75	Undefined	70-80	>80
Office Buildings, Business Commercial and Professional	<70	67-77	>75	Undefined
Industrial, Manufacturing, Utilities, Agriculture	<75	70-80	>75	Undefined

Source: California Office of Planning and Research (OPR) 2017

Notes:

1. Normally Acceptable: specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction without any special noise insulation requirements.
2. Conditionally Acceptable: New construction or development should only be undertaken after a detailed analysis of the noise reduction requirements is made and the needed insulation features included in the design.
3. Normally Unacceptable: New construction or development should generally be discouraged. If new development is to proceed, a detailed analysis of the noise reduction requirements is made, and the needed insulation features are included in the design.
4. Clearly Unacceptable: New development or construction should not be undertaken.

3.3 Local

3.3.1 City of Signal Hill General Plan Noise Element

The City of Signal Hill General Plan (City of Signal Hill 2009), Noise Element, has a number of goals and policies related to noise. City General Plan noise policies that apply to the Project are summarized in **Table 10**.

Table 10. Applicable City of Signal Hill General Plan Goals and Policies

Element	Goal	Policy	Applicability
Noise	Goal 1: Protect the health, safety, and welfare of people living and working within the city from adverse noise impacts.	Policy 1.a: The City will consider the severity of noise exposure in the community planning process to prevent or minimize noise impacts to existing and proposed land uses. Policy 1.d: The City will inform those living and working within the city of the effects of noise pollution and will cooperate with all levels of government to reduce or minimize impacts. Policy 1.e: Require noise mitigation to ensure that noise-sensitive land uses are not exposed to noise levels of greater than 45 dB in habitable rooms and 65 dB in outdoor living areas. Policy 1.f: Where needed, the City will encourage the use of noise mitigation methods that minimize visual impacts and maintain necessary access.	The Project would be subject to City regulations and applicable noise limits.

Source: City of Signal Hill 2009

In addition to the goals and policies above, the Noise Element of the General Plan also outlines general standards for assessing compatibility of various land use types with a range of noise levels. Specifically, Implementation Program – Number 16 indicates that the City should "require an acoustical analysis report where the introduction or addition of a new noise source has the potential to result in exterior noise levels exceeding 60 dB CNEL at a noise-sensitive location. The report must show how noise mitigation measures have been incorporated into the design of the new noise source to reduce interior noise levels at noise-sensitive locations to 45 dB CNEL" (City of Signal Hill 2009). **Table 11** was also taken from the General Plan and summarizes noise level compatibility criteria for various land uses.

Table 11. Signal Hill General Plan – Noise Compatibility Criteria by Land Use

Land Use Type	Interior/Exterior	Compatibility Criteria
Residential	Exterior	Outdoor living areas must be mitigated to 65 dB CNEL or less.
Residential	Interior	Habitable rooms must be mitigated to 45 dB CNEL or less.
Other Noise-Sensitive Uses	Exterior	Same as residential criterion.
Other Noise-Sensitive Uses	Interior	Same as residential criterion.
Commercial	Exterior	A noise level of 70 dB CNEL or less, or one that does not interfere with normal business activity.
Industrial	Exterior	A noise level of 75 dB CNEL or less, or one that does not interfere with normal business activity.

Source: City of Signal Hill 2009

3.3.2 City of Signal Hill Municipal Code

The City of Signal Hill – Municipal Code, specifically Title 20 (Zoning), Section 20.39.130 requires that development within SP-19 General Industrial Specific Plan area comply with the requirements of Title 9 (Public Peace, Morals and Welfare) which contains various provisions that regulate both construction and operational noise from stationary and mobile sources. Applicable Signal Hill – Municipal Code noise and vibration standards and related information/policies are summarized below.

Title 9 – Public Peace, Morals and Welfare, Chapter 9.16 (Noise)

- 9.16.020 – Definitions. The following terms used in this chapter, unless the context clearly indicates otherwise, shall have the respective meanings set forth in this section:

  A. "Ambient noise" means the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. For the purpose of this chapter, "ambient noise level" is the level obtained when the noise level is averaged over a period of fifteen minutes without inclusion of noise from isolated identifiable sources, at the location and time of day near that at which a comparison is to be made.

  B. "Ambient noise level" as referred to in this chapter, means the higher of the following:
  1. Actual measured ambient noise level; or
  2. Presumed ambient noise level as determined from the following chart:

Zone	Night	Day
	(10 p.m. to 7 a.m.)	(7 a.m. to 10 p.m.)
Residential	50	60
Commercial	60	65
Industrial	70	70

- 9.16.030 – Noise standards.

  A. Notwithstanding any other provision of this chapter, and in addition thereto, it is unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary, or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness in the area.

- 9.16.060 – Machinery and equipment other than that required for servicing, redrilling and reworking of existing oil wells.

  A. It is unlawful for any person to operate any machinery, equipment, compressor, pump, generator, fan, air conditioning apparatus, or similar mechanical device, or provide boarding or daycare to animals in an enclosed building (kennel) in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than five decibels.

  B. This section shall not prevent the normal operation, repair, or maintenance of household gardening equipment and hobby shop equipment or the servicing, redrilling and reworking of oil wells.

SECTION 4 Existing Conditions

4.1 Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses, as are commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance.

There are numerous sensitive receptors in proximity to the Facility as summarized in **Table 12.**

Table 12. Sensitive Receptors in Proximity to the Facility.

Direction from Project Site	Sensitive Receptor	Distance to Nearest Project Component
Northwest	K Wellness Holistic Health Spa (701 E. 28th St.)	520 feet
West	Memorial Orthopedic Surgical Group (2760 Atlantic Ave.)	460 feet
West	Atlantic Memorial Healthcare Center (2750 Atlantic Ave.)	475 feet
East	Willow Springs Park (2745 Orange Ave.)	860 feet
Southwest	Single-Family Residences (Lime Ave.)	625 feet
South	Long Beach Islamic Center (995 E. 27th St.)	225 feet
South	Undershirt Inc. (931 E. 27th St.)	165 feet
South	Commercial Building (901 E. 27th St.)	224 feet
South	Cal Institute of EMT Training Institute (2669 Myrtle Ave.)	380 feet
South	Commercial Building (999 E. Willow St.)	895 feet
South	EDCO Customer Service Office (950 E. 27th St.)	430 feet
Southeast	Sunnyside Cemetery (1095 Ea. Willow St.)	480 feet

4.2 Existing Noise Sources and Ambient Noise Levels

The existing ambient noise environment is consistent with that of a developed urban and industrial area. Because of the active industrial zoning, naturally elevated baseline noise levels are common and generally persistent. Existing noise sources near the Project site receptors include traffic/transportation noise, adjacent Ready-Mix operations, adjacent and oil and gas operations, and natural sounds (wind, dogs barking, etc.). Other existing intermittent yet significant noise sources included motorcycles and

occasional aircraft flyovers. These surrounding noise sources constitute the existing physical conditions. Per City of Signal Hill Municipal Code 19.16.020(B), presumed ambient noise levels in industrial zones is 70 dBA during daytime hours (7 a.m. to 10 p.m.) and 70 dBA during nighttime hours (10 p.m. to 7 a.m.).

4.3 Existing Vibration Environment

Similar to the environmental setting for noise, the vibration environment is dominated by traffic from nearby roadways. Heavy trucks can generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions. According to the FTA (2018), *Transit noise and Vibration Impacts Assessments*, "if the roadway is fairly smooth, the vibration from rubber-tired traffic is rarely perceptible." Roads in the Project area are smooth asphalt and it is unlikely that traffic on the local roadway is perceptible.

SECTION 5 Project Noise Prediction

5.1 Methodology

5.1.1 Noise

The Project operation noise levels were estimated using the computer noise propagation model SoundPLAN Essential (version 5.1), which calculates noise impacts taking into account terrain features including relative elevations of noise sources, receivers, and intervening objects, ground effects due to areas of pavement and unpaved ground, and atmospheric effects on sound propagation. The following assumptions and parameters are included in the SoundPLAN supported noise source assessment:

- Ground effect acoustical absorption coefficient equal to 0.0, which represents the acoustically reflective "hard" surface;
- Reflection order of 1, which allows for a single reflection of sound paths on encountered structural surfaces such as buildings and structures; and
- Calm meteorological conditions (i.e., no wind) with 70 degrees Fahrenheit and 83% relative humidity.

Noise impacts associated with the proposed Project would be primarily as a result of increased traffic noise levels on surrounding roadways and minor increase in off-road equipment (i.e., loaders) use onsite. Off-site traffic noise as a result of increasing the Facility's maximum permitted throughput by an additional 1,000 tpd was modeled using the estimated vehicle trips associated with expanded operations presented above in **Table 4**. For a conservative analysis, collector trucks, transfer trucks, and self-haul vehicles are input into the model as trucks, with employee vehicles input as passenger cars. In addition, the maximum daytime hourly trip rate of 50 vehicles (i.e., roundtrips) is assumed for all daytime hours (7 a.m. to 10 p.m.), and maximum nighttime trip rate of 30 vehicles (i.e., roundtrips) is assumed for all nighttime hours (10 p.m. to 7 a.m.) (refer to **Table 5** above for hourly trip rate assumptions). Noise receivers were modeled at 50 feet from the roadway centerline. The greatest noise impacts would be concentrated at the entrance and exit routes to the Facility with maximum traffic rates along California Avenue, 28th Street, and E. Patterson Street. Outside of this area, vehicle trips would be distributed and diluted over a relatively wide area (100 square miles, or greater). Accordingly, onsite and offsite noise localized to the area surrounding the Project site were considered in the analysis of noise impacts on nearby sensitive receptors. Specifically, noise levels increase by 3 dBA when the number of similar noise sources double. The increase in truck trips and worker vehicle trips are not anticipated to double the amount of traffic that currently exist in the greater surrounding are. As such, the increase in trucks and worker vehicles in the surrounding roadways is not anticipated to incrementally increase noise levels in the surrounding area by 3 dBA or more and are not analyzed further herein.

For off-road equipment detailed in **Table 6** above, the model conservatively assumes that the equipment could be used anywhere within the exterior boundary of the Facility, although in reality the transfer vehicle loading would only occur in the designated loading areas.

5.1.2 Vibration

The proposed Project would result in additional heavy vehicle trips on local roadways accessing the Project site. Rubber-tire heavy vehicles traveling on roadways typically will not produce perceptible vibration at adjacent buildings. Roadways providing access to the Project are located at a distance of at least 20 feet from any offsite residence or any other sensitive receptor structure. The proposed Project would not have any other additional operational sources of vibration. Further, the speed limit on the adjacent roadways is less than 30 miles per hour and the road surface is in good condition. As trucks enter and exit the site, they would traverse the asphalt drive at very low speeds. As noted in FTA (2018), rubber tires and suspension systems provide vibration isolation, and therefore, it is unusual for ground-borne vibration associated with on-road vehicle movement to be perceptible. Therefore, no impacts relative to vibration are expected as a result of the proposed Project and are not analyzed further herein.

5.2 Predicted Results

Based on the types and number of off-road equipment and vehicle types and trip rates, Project-related noise is propagated to the nearest sensitive receptors to estimate the maximum change in CNEL noise levels resulting from the proposed Project as summarized in **Table 13.** Modeled CNEL noise levels associated with the Project are illustrated in **Figure 5**. As shown in **Table 13**, Project-related on-road and off-road activities would not increase noise levels above City of Signal Hill noise standard of 75 dBA CNEL for industrial land uses at the Facility fence line or the City of Signal Hill noise standard for commercial areas of 65 dBA CNEL. Similarly, noise levels propagated to the nearest residential and other sensitive receptors (e.g., Long Beach Islamic Center and Sunnyside Cemetery) would not exceed the City of Signal Hill General Plan exterior noise threshold of 65 dBA CNEL at the nearby noise-sensitive land uses.

Table 13. Modeled Maximum Project Sound Levels.

Receptor ID	Sensitive Receptor Description	Modeled Project Noise Level[1] (dBA CNEL)	Noise Standard[2] (dBA CNEL)	Exceed Standard?
F1	Facility Fence Line - North	68.6	75	No
F2	Facility Fence Line - West	69.2	75	No
F3	Facility Fence Line - South	69.5	75	No
S1	K Wellness Holistic Health Spa (701 E. 28th St.)	46.1	70	No
S2	Memorial Orthopedic Surgical Group (2760 Atlantic Ave.)	47.3	70	No
S3	Atlantic Memorial Healthcare Center (2750 Atlantic Ave.)	46.6	70	No
S4	Single-Family Residences (Lime Ave.)	44.1	65	No
S5	Cal Institute of EMT Training Institute (2669 Myrtle Ave.)	50.3	70	No
S6	Commercial Building (901 E. 27th St.)	51.3	70	No
S7	Undershirt Inc. (931 E. 27th St.)	55.2	70	No
S8	Long Beach Islamic Center (995 E. 27th St.)	58.7	65	No
S9	EDCO Customer Service Office (950 E. 27th St.)	53.1	70	No
S10	Sunnyside Cemetery (1095 Ea. Willow St.)	60.4	65	No
S11	Commercial Building (999 E. Willow St.)	62.6	70	No
S12	Willow Springs Park (2745 Orange Ave.)	46.0	65	No

Notes:

[1] Modeled CNEL noise level is associated with Project-related mobile sources and off-road equipment is the 24-hour average L_{eq} with a 10 dBA weighting added during the hours of 10:00 pm and 7:00 am and a 5 dBA weighting added during the hours of 7:00 pm to 10:00 pm to account for noise sensitivity in the evening, nighttime, and early morning.

10. [2] The Noise Standard reflects the Exterior Compatibility Criteria for the respective land use from the City of Signal Hill General Plan, Noise Compatibility Criteria by Land Use (see Table 9 above) as applied to Project operations.

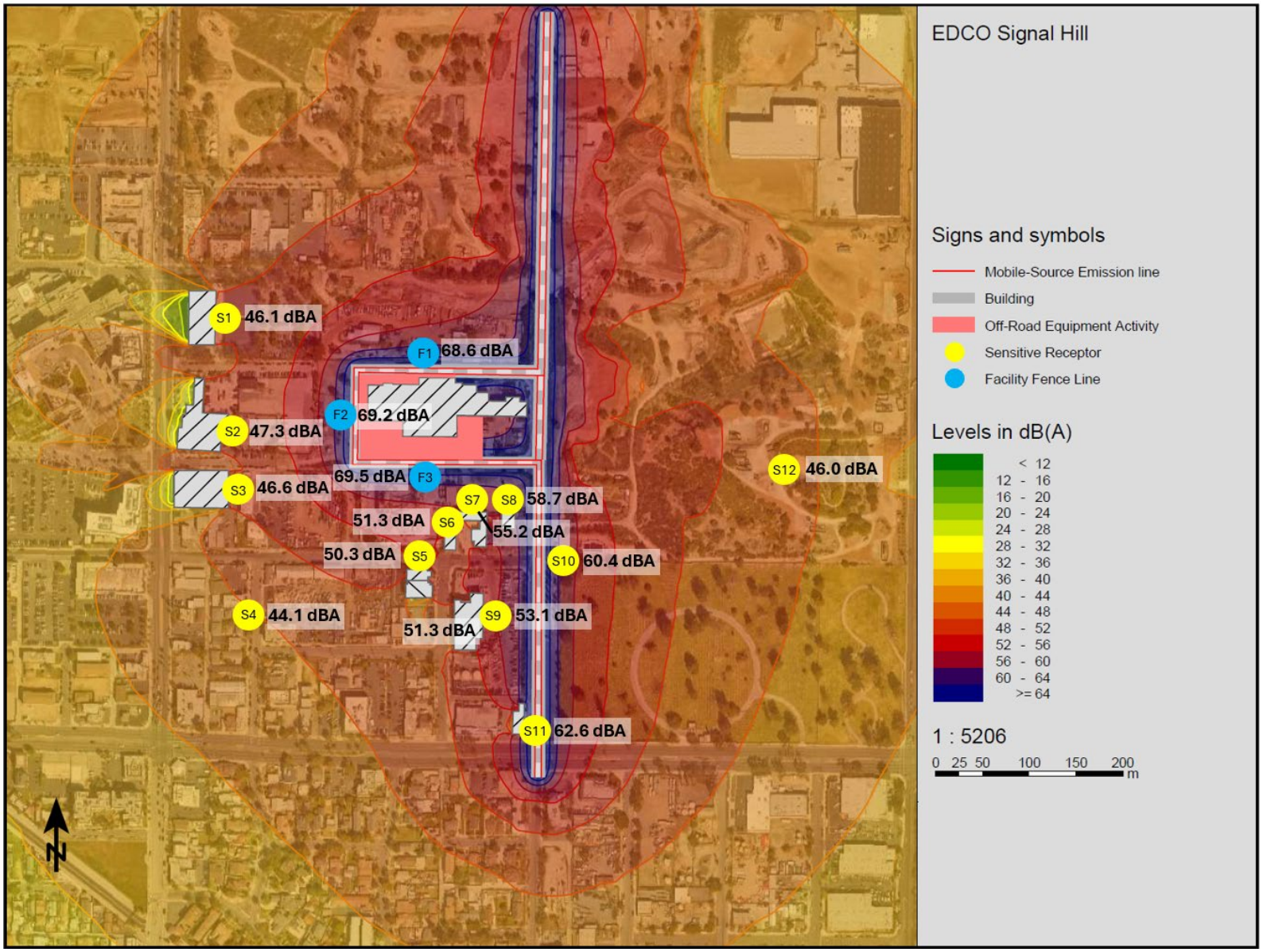


Figure 5. Modeled Project Noise Levels (CNEL)

SECTION 6 Conclusions

Based on the SoundPLAN modeling of the Project, anticipated Project-related noise levels would not exceed local thresholds nor would it result in an increase in ambient noise levels above the presumed ambient noise levels for the respective land uses. Thus, the Project would comply with local guidelines set forth in the City's Noise Element and Noise Ordinance. Therefore, the Project would not generate significant noise levels that would disturb noise-sensitive land uses (i.e., residential, commercial, and other sensitive land uses) in the vicinity.

SECTION 7 References

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